



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 573 Dispur, Friday, 5th August, 2022, 14th Sravana, 1944 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING & URBAN AFFAIRS

NOTIFICATION

The 11th July, 2022

No. UDD(T)244/2022/6 :- In exercise of the powers conferred by the Section 9 and Sub-Section (1) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) and (Assam Act, II of 1960) read with sub-rule (1) of Rules 3 of the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulations) Rules 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Draft Revised Master Plan for Silchar.

Notice for publication of the Draft Revised Master Plan for Silchar

1. It is notified that the Draft Revised Master Plan for Silchar prepared by the Directorate of Town & Country Planning, Government of Assam, Town & Country Planning Act, 1959 (as amended) read with Sub-section 1 of Section 10 of Assam Town & Country Planning Act, 1959 (as amended) for the area described in the schedule below is hereby published.
2. Any person or persons affected by the Draft Revised Master Plan may submit their objections or opinions in writing to the Director of Town & Country Planning within two months from the date of publication.
3. The Draft Revised Master Plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of Director, Town

& Country Planning, Assam, Guwahati, Dispur-6, office of the Mission Director, AMRUT, Guwahati, Dispur-6, Deputy Director, Town & Country Planning, Dist Office – Silchar, office of the Deputy Commissioner, Cachar, office of the Chairman, Silchar Development Authority, office of the Chairman, Silchar Municipal Board & Office of the Silchar Revenue Circle. Copy of the Draft Revised Master Plan is available in the office of the Deputy Director, Town & Country Planning, Dist Office – Silchar for sale on payment.

SCHEDULE:

District	:	Cachar
Revenue Circle	:	Silchar Revenue Circle
Paragana	:	Barakpar, Chatla Howar, Rajnagar, Jainagar
Master Plan	:	Silchar
Existing Master Plan Area	:	111.83 Sq.km.
Revised Master Plan Area	:	174.00 Sq.km
Municipal Area	:	15.75 Sq.km.
Urban Area (MB+OG+CT)	:	48.91 Sq.km.
Village Area	:	125.09 Sq.km.

REVENUE AREAS INCLUDED IN
DRAFT REVISED MASTER PLAN FOR SILCHAR

PARAGANA	VILLAGE
BARAKPAR	Silchar Town, SilcharPt -X, XI Berenga Part – I, II, III, IV, V Ambikapur Part – I, II, III, IV, V, VI, VII, VIII, IX, X, XI Kanakpur Part – I, II Rangpur Part –I, II, III, IV Bahadurpur, Goshaipur Part – I, III, V (portion)

PARAGANA	VILLAGE
BARAKPAR	Dudhpatil Part-III (portion), IV (portion), V, VI, VII Dudhpatil Grant Maghughat, Machimpur Part-II Machimpur Grant, MachimpurBagicha, Mohimpur Part-I, Kashipur Grant, Kashipur Part-I, II, Arkatipur Grant (portion), Badripur Part-IV, V, Gangapur, Near Gram Part-I, Dhamalia Uttar Krishnapur Part-I, II, III, IV Tupkhana Part-I, II Bhojointipur Part-I, II, III Tarapur Part-I, II, III, IV, V, VI, VII, VIII
CHATLA HOWAR	Sabajpur Bhorakhai Grant sheet-I, II, III, IV, V Saidpur Part-I, II-III (portion) Bariknagar Part-I, II Silcoorie Grant Part-IV, Silcoorie Grant, Magal Khal, Khatal Grant, Merua Grant, Chang Duar Part-I, Digar Srikona Part-II,

PARAGANA	VILLAGE
CHATLA HOWAR	Elgin Grant, Pachim Biroin Howar, Indira Goarh, Indira Goarh Grant, Srikona Grant, Srikona, Matirhar Part-I, Jayfarpur Tarutajabari Part-I Bagalaghat Grant-I, II Bagalaghat Part-I, II Chengkuri Grant-I, II Nijchatla Howar
RAJNAGAR	Rakhalkhalerpur Part-I, II
JAINAGAR	Balighat Kumarpara Uzan Gram

DESCRIPTION OF BOUNDARIES

- North** – Dudhpatil Part-III, IV, VI, VII (portion) and Masimpur bagicha (portion), Gosaipur Part-V (portion)
- South** – Sonabarighat Pt-I, Barik Nagar-II (portion), Silicoori Grant-IV (portion),
- East** – Niz Banskandi Pt-II, Badripur Pt-IV (portion), Arkatipur Grant (portion), Dhamalia (portion)
- West** – Srikona Pt-II and Chengduar Pt-II, Indra Gorah (portion), Matirhar Pt-I (portion), Srikona Grant (portion).

KAVITHA PADMANABHAN,

Commissioner & Secretary to the Government of Assam,
Department of Housing & Urban Affairs,
Dispur, Guwahati-6.

1 INTRODUCTION TO MASTER PLAN AREA

1.1 REGIONAL SETTING

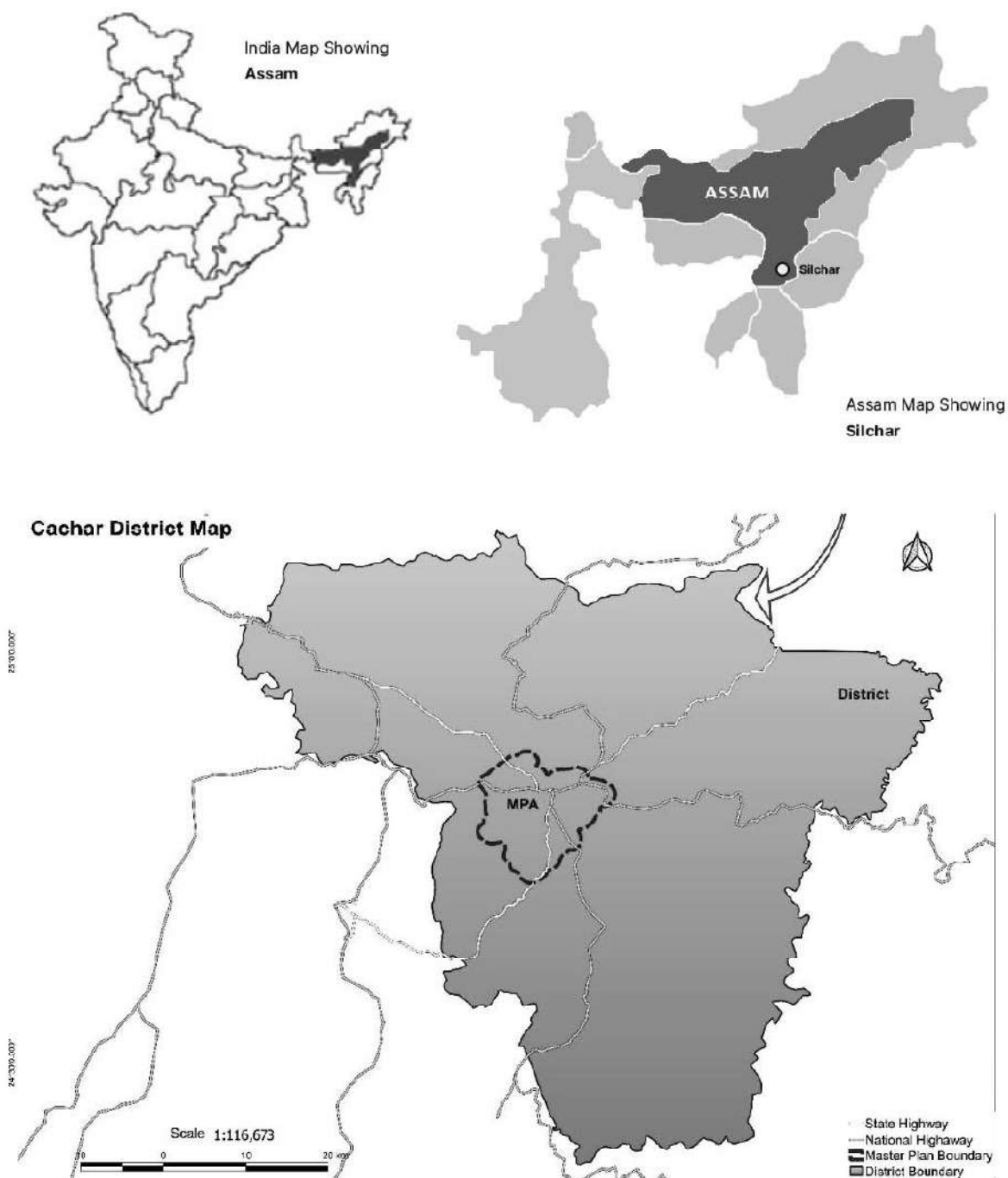


Figure 1 SMPA Location within Cachar District

1.1.1 ASSAM – AS A STATE

Assam is the second largest state among the seven sister states of North-Eastern Region of India. The other six states are (i) Arunachal Pradesh, (ii) Manipur (iii) Meghalaya, (iv) Mizoram, (v) Nagaland and (vi) Tripura. With a geographical area of about 78, 438 sq. kms, Assam accounts for one-third of the area of the North-Eastern region and 2.4 percent of the area of the country. The State has varied landforms, diverse flora and fauna and unique cultural traditions. Assam has a generally humid climate with a pleasant and long winter and brief summer. Temperatures vary from 180 C to 350 C in summer and from 70 C to 260 C in winter. Rainfall is heavy during the monsoon season from June to September and the average heavy rainfall is around 2400 mm. The best tourist season is October to April covering both winter and spring.

(Source: India Meteorological Department).

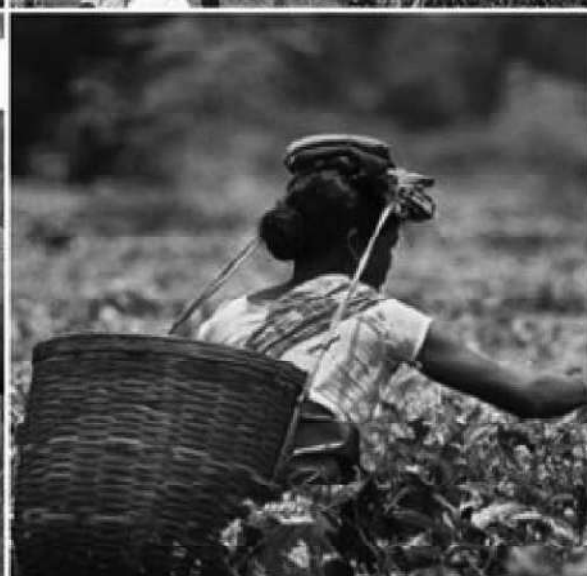
The economy of Assam is largely dependent on the rivers Brahmaputra and Barak along with their tributaries. The river Brahmaputra, which is the largest river in India, flows through the entire length of the State. Both the rivers, while nourishing the state and aids its economic development, also cause much havoc during monsoons. The hills running east to west divide Assam into two distinct valleys – Brahmaputra and Barak Valleys. The Barail Mountain ranges as well as Rengma and Kambi hills lie between the valleys.

Assam is a State of breath-taking scenic beauty. Its rolling hills, dense forests, green valleys, large waterways and rich bio-diversity make Assam one of the splendid tourist destinations in the world. The State is also having unique art and culture, fairs and festivals, temples and monuments and handicrafts and handlooms. Forests cover almost one-fourth of the geographical area of the state. These forests, apart from being the home of a variety of animal and plant species and active biospheres, also provide excellent opportunities for nature tourism, wildlife and bird watching, jungle safaris and trekking. Assam has the rare distinction of possessing world natural heritage sites and beautiful national parks, tiger reserves and wildlife sanctuaries. There are five national parks and eleven wildlife sanctuaries in the state. Assam is a natural conglomeration of various ethnic tribes and groups, each having a distinct language, culture, songs, dances, and festivals. Rangoli Bihu festival, tea tourism festival, Brahmaputra beach festival, etc. Are being organized in the state as tourism events.





Bihu dancers, Assam, India - © ian



1.1.2 CACHAR – AS A DISTRICT

The District of Cachar is located in the Southernmost part of Assam and one of the oldest districts of Assam. The name "Cachar" has derived from the Dimasa word Kachari. The district headquarters are located at Silchar. The name Cachar traces its origin to the Kachari Kingdom (called Dimasa Kingdom in medieval times). The district was created in 1830 after annexation of Kachari Kingdom by British. In 1854, North Cachar was annexed and tagged to the district. In 1951 erstwhile North Cachar Sub-Division was made a separate district and taken out of Cachar. The district was split in 1984 and 1989 to carve out two new districts: viz., Karimganj and Hailakandi respectively. Cachar extends from 24° 22' N to 25° 8' N latitude and 92° 24' E to 93° 15' E longitude, covering an area of 3786 sq. km.

It is bounded on the **North:** by Barail and Jayantia hill ranges, on the **South:** by the State Mizoram, on the **East:** by the State of Manipur and **West:** by sister districts Hailakandi and Karimganj. The Barak is the main river of the district and apart from that there are numerous small rivers which flow from Dima Hasao district, Manipur or Mizoram. The district is mostly made up of plains, but there are a number of hills spread across the district. The district consists of two subdivisions; viz., Silchar and Lakhimpur; five revenue circles, 15 blocks, 163 Gaon Panchayats and 895 villages.





Aerial View of City

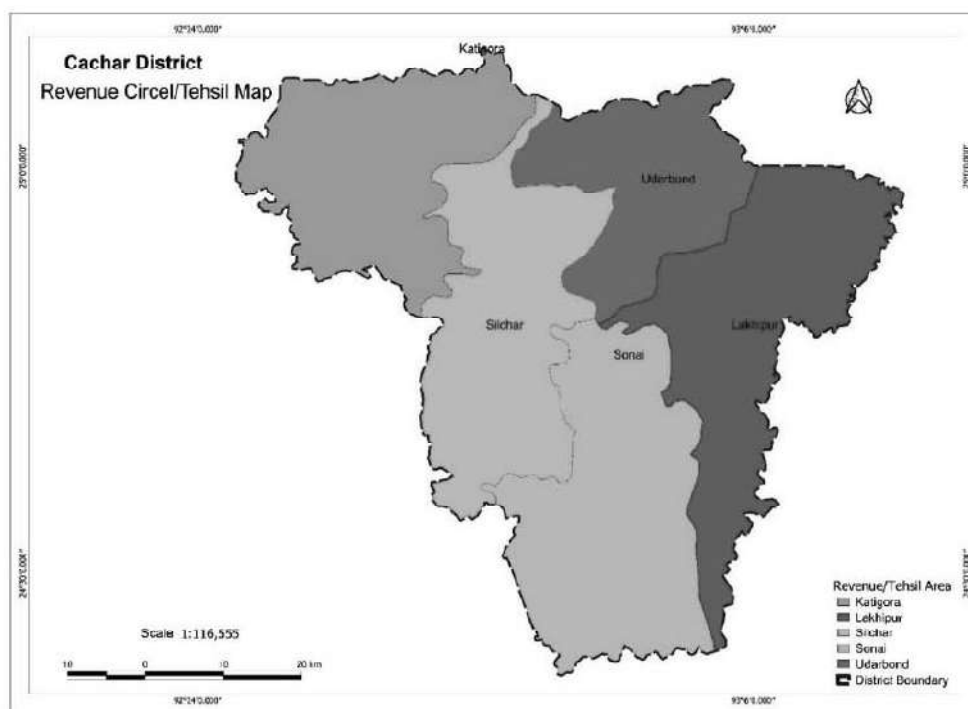


Figure 2 Cachar Revenue circle/Tehsil map

1.1.3 SILCHAR – CITY PROFILE

Silchar the headquarters town of Cachar district, is situated on the left bank of the Barak river in the extreme southern part of the state. The area was annexed by a British officer Lieutenant Fisher In 1833 A.D. Situated between 24°49' N and 92°48' E, the area is surrounded by the Barail Hills in the North, the Mizo Hills in the South, Manipur state in the east and Bangladesh in the west. The name 'Silchar' has been derived from a Bengali word 'Sila-char' which means stony riverbed. Thus, the town is the stony riverbed of the Barak. The river enters the town through eastern side and runs through its north-eastern border. The town has evolved to its present state through a variety of experiences and developments since its' annexation. Silchar Municipality Board was constituted in 1898 under Act V (B.C) of 1876. The town has been growing during the last one hundred years. At present, the municipal area of the town covers 15.75 sq.km.

Silchar Town is the economic gateway to the state of Mizoram and part of Manipur. It is situated 420 kilometers south east of Guwahati. The town of Silchar has tremendous commercial importance and is the second largest in the state of Assam. Apart from being an important administrative town it has gained considerable importance as a centre for trade and commerce, educational and socio-cultural activities in Barakvelly region. With the establishment of National Institute of Technology, Silchar Medical College, Assam Central University, Defence establishment, ONGC and many other Public organizations in surrounding vicinity of Silchar town urbanization has gained a rapid momentum. The town is also the feeding centre of tea industries of the district.

The town has the tropical humid climate as found in the rest of the state. Generally, the outskirts of the town get flooded, causing extensive damage to the poor farmers. The winter is pleasant and has generally no rains. Wind blow is generally from the north east in the morning and from the south east in the afternoon. About the end of February stormy weather sets in and in March there are often thunderstorms and frequently heavy fall of hails, doing much damage to the tea. In April and May these storms become mild. A fair amount of rain fall takes place in summer (March to May). The average annual rainfall at Silchar is 121 inches. The early rains in the summer bring the most needed relief to the people. Like the rest of Assam, Silchar is a seismic prone area and experiences earthquakes often. In general, the climate of Cachar district is temperate. (Source: Bhattacharjee and Sen 2005 :1, 3)

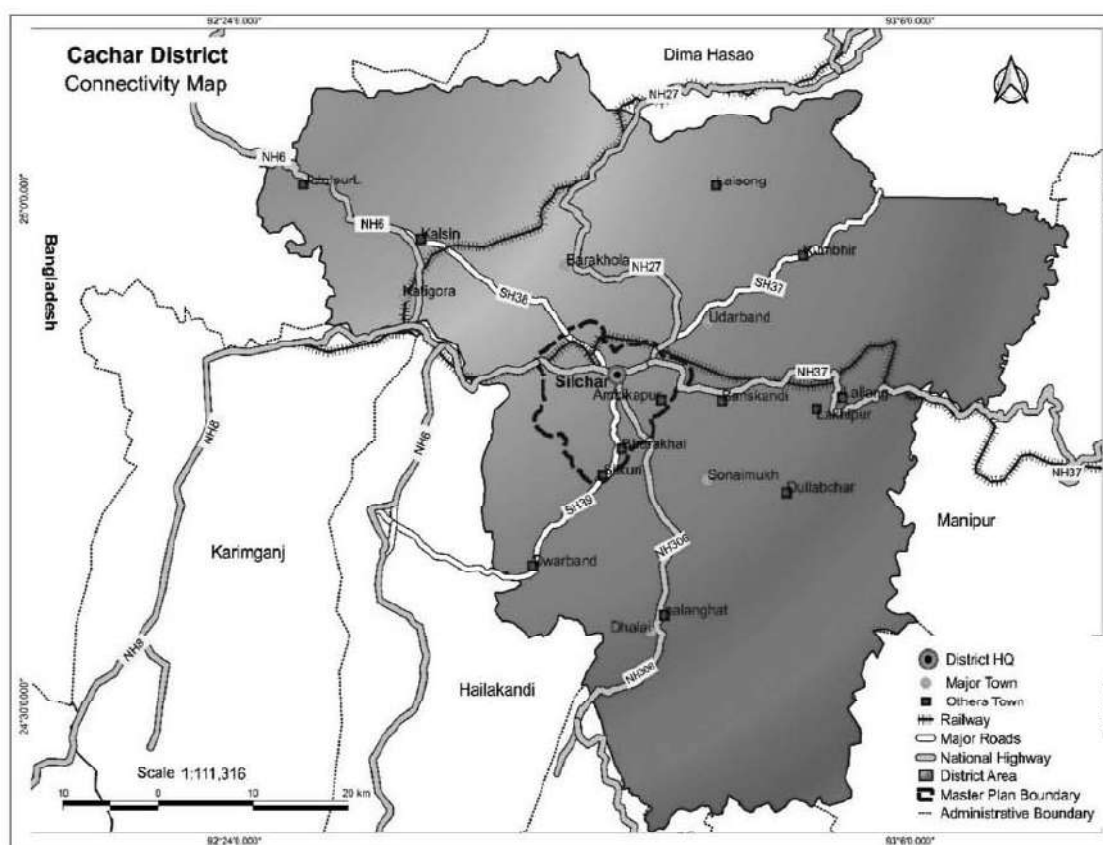


Figure 3 Connectivity map

Availability of good infrastructure in terms of connectivity, is of great importance for any region. Connections are important to strengthen its integration within itself, its neighbours and with the rest of the country.

1.1.4.1 Roads

Silchar is well connected through roads to major cities/towns towards northern, southern and western side by National Highways 6,8,27,37 and 306. The major metropolitan area connected to the planning area is Guwahati and it is easily reachable by roadways through NH-6 and NH-27. Silchar to Guwahati bus services are also available. The SH and NH roads also connect Silchar to Jorhat, Guwahati, Dibrugarh, Aizawl, Shillong, Agartala and other places.

Table 1 Connectivity from Silchar

Connectivity from Silchar	Distance (km)	Duration (in hrs)	
		By Road	By Rail
Lakhipur	29	1 hrs	-
Sonal	18	37 min	-
Udharbond	15	31 min	-
Katakhal	19	36 min	34 min
Durgakona	20	47 min	-
Dalu	25	36 min	-

1.1.4.2 Railways

Silchar railway station also known as Bhasha Shahid Railway Station is a railway station situated at Tarapur, Silchar in Assam. The railway station falls under the jurisdiction of the Northeast Frontier Railway zone of the Indian Railways. The railway gauge functioned here is broad gauge. The station consists of "Single Diesel". It is one of the oldest railway station in India built under Assam Bengal Railway. The station has 3 platforms with

a total of 14 originating trains. It serves Silchar, as well as the whole Barak Valley. The train is running between Silchar and Guwahati, via Haflong and Luming, and covers the distance of 380 km in about 12 hours. Trains operate to different cities of India from Silchar including Delhi, Kolkata, Chennai, Visakhapatnam, Kanpur, Patna, Prayagraj, Coimbatore, Vijayawada, Guwahati, Bhubaneswar, Thiruvananthapuram & Agartala. As of now, 170 stations across India are directly connected to Silchar railway station.

1.1.4.3 Airways

Silchar Airport is located at Kumbhirgram, 29 km (18 mi) from Silchar in the state of Assam built by the British as RAF Station Kumbhirgram in 1944 and transferred to the Royal Indian Air Force (RIAF). It is also a Civil enclave airport as it is under the control of Indian Air Force. The airport is situated on the foothills of the Barail range. It is the fourth busiest airport of the north-east India next to Guwahati, Agartala and Imphal. Passenger traffic in Silchar airport showed a sharp growth of 72.9% in 2017-18, and handled 366,955 passengers. While in 2018-19 the traffic growth was reported 5.4% to 386,665. Silchar Air port is directly connected to major Metro stations like Kolkata, Bengaluru, Delhi, Guwahati, Hyderabad, Jaipur and Mumbai by three Airlines namely Air India, IndiGo and Spice Jet.

1.1.4.4 Waterways

National Waterways 6 is a waterway between Lakhimpur and Bhanga of the Barak River. Inland water transport facility is available in Silchar at Annapurna Ghat, Ghaniwala (Choto Dudhpatil Ferry Ghat) and Madhura Mukh.

1.1.4.5 Interstate connectivity

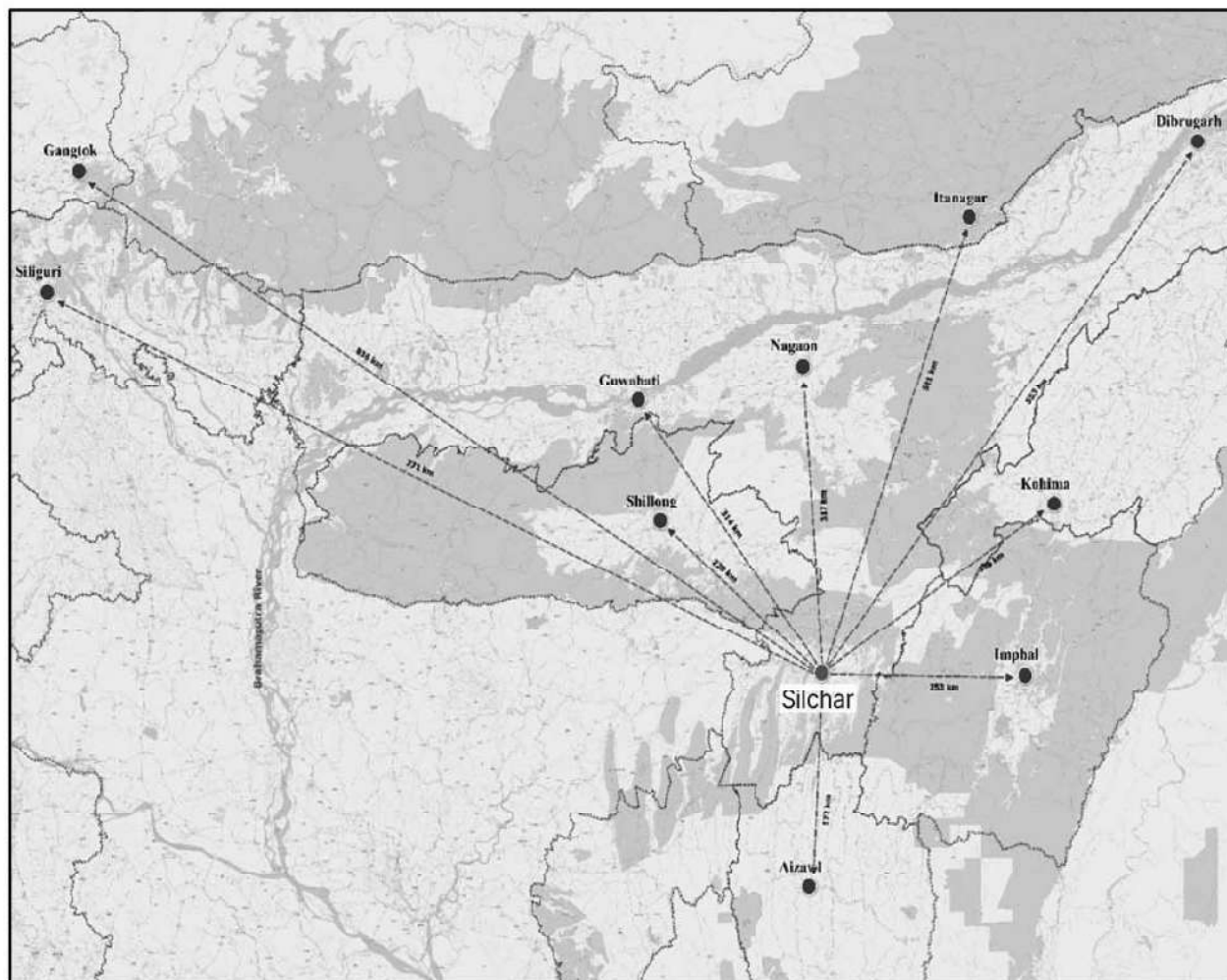


Figure 4 Interstate connectivity

Table 2 Interstate connectivity from Silchar

Connectivity from Silchar	Distance (km)	Duration (in hrs)		
		By Road	By Rail	By Flight
Itanagar	531	15 hrs	14 hrs	-
Kohima	356	13 hrs	9 hrs	-
Imphal	253	9 hrs	6 hrs	-
Aizawl	172	7 hrs	6 hrs	-
Shillong	220	7 hrs	15 hrs	-
Guwahati	314	9 hrs	10 hrs	1 hrs
Siliguri	771	19 hrs	18 hrs	4 hrs
Gangtok	836	22 hrs	21 hrs	5 hrs
Nagaon	317	10 hrs	8 hrs	-
Dibrugarh	553	17 hrs	13 hrs	16 hrs(indirect)

1.2 CONSTITUENTS OF PLANNING AREA

Overall administrative divisions of Cachar District profile. District boundary area is 3786 sq.km. where total population is 17,36,319. The delineated GIS based Silchar Master Plan area is a part of Cachar District.

Table 3 Administrative divisions of Cachar District

Sr. No.	Administrative division of Silchar District	Type Number
1	No. of Civil Sub-Division	2
2	No. of Towns	2
3	No. of Revenue Circle	5
4	No. of Development Block	15
5	No. of Gram Panchayat	163
6	No. of Revenue Villages	895
7	No. of Legislative Assembly Constituencies	7
8	No. of Community Information Centre	15
9	Police Stations	8
10	National Highways Passing through the district	NH-37 and NH-306

(Source: District Portal, Govt.)

In the lower house of the Indian Parliament, Silchar is one constituency and represented by one elected Member of the Parliament. The district has two Sub-Divisions: Silchar and Lakhimpur. Katigorah as a Sub-division declared by Tarun Gogoi cabinet in the year 2016. Revenue Circles: Silchar, Lakhimpur, Sonai, Udharbond and Katigorah. There are seven Legislative Assembly Constituencies in this district: Silchar, Sonai, Dholai, Udharbond, Lakhimpur, Barkhola and Katigorah. Dholai is designated for scheduled castes. All seven are in the Silchar Lok Sabha constituency.

1.2.1 AREA INCLUSION IN SILCHAR MPA

The planning area of GIS Based Master Plan consists of 1 revenue circle namely Silchar. Silchar town consists of 28 Wards and 2 Out Growths area which falls under Silchar revenue circle. The **Silchar Master Plan Area** covers this **Silchar MB area, 2 Outgrowth, 10 Census Towns and 85 villages** from rural area. The delineated area has **4 boundaries**. The boundary of Silchar MPA is as follows:

North – Dudhpatil Part III and Masimpur bagicha,

East – Niz Banskandi Pt II

South – Sonabarighat Pt I,

West – Srikona Pt II and Chengduar Pt II,

Table 4 Municipal Board/ Outgrowth/ Contiguous Area and Revenue Circle

Sr.No	Name of ULB/ Outgrowth/ Census Town	Revenue Circle
1	Silchar Municipal Board	Silchar
2	Tarapur VIII (OG)	Silchar
3	Silchar XI (OG)	Silchar
4	Ambicapur Pt VIII (CT)	Silchar
5	Ambicapur Pt VI (CT)	Silchar
6	Ambicapur Pt. X (CT)	Silchar
7	Dudhpatil Pt VI (CT)	Silchar
8	Dudhpatil Pt V (CT)	Silchar
9	Tarapur Pt VI (CT)	Silchar
10	Tarapur VII (CT)	Silchar
11	Tupkhana Pt I (CT)	Silchar
12	Uttar Krishnapur Pt III (CT)	Silchar
13	Uttar Krishnapur Pt. I (CT)	Silchar

1.2.2 MUNICIPAL WARDS AREA

Table 5 Municipal Ward Area year wise

Ward No.	Area Name	Area (Sq.Km.)
1	Makugram	0.37
2		0.62
3		0.59
4		0.38
5	Rongpur	1.34
6	Janiganj, Central Road, Tulapatty	0.36
7	A part of Janiganj, Kalibari Road, Malakar Patti, Kalibarichar	0.30
8	Madhurbondh. apart of Lakhipur	0.30
9	A part of Lakhipur Road, Padamabeel.	0.23
10	Apart of Padmabeel, Radhamadhab Road, Panpatty, Hospital Road, Premtala.	0.28
11	Shasan Road, a part of Ambicapatty, Hospital Road, Chandicharan Road.	0.29
12	A part of N.S. Avenue, Pulic School Road, a part of Radhamadhab Road.	0.30
13	Apart of Sona Road.	0.37
14	A part of Sona Road, Saradpalli, and Kanakpur Road one each	0.93
15	A part of Sona Road, Link Road, and Halakandi Road one each	0.18
16	A part of Link Road, Sona Road, and Halakandi Road one each.	0.87
17	National Highway, a part of Kathal Road and Halakandi Road one each	0.89
18	Das colony and a part of Halakandi Road.	0.71
19	Chencoorie Road and a part of Panchayat Road	0.29
20	Shiv colony, Tarani Road and a part of Halakandi Road	0.20
21	Subhash Nagar and apart of Shosan Road and Ambicapatti one each.	0.27
22	Ambicapatti, a part of Jail Road and Premtala one each.	0.38
23	Central Road, Najirpatti, Narshingtala and a part of Shillongpatti	0.38
24	Apart of Park Road, Club Road, Trunk Road and a part of Shamiji Road (Itkhola) and Tarapur one each	0.89
25	A part of Vivekananda Road, Tikarbasti, Ramkrishna Mission Road and Jhalupara	0.88
26	A part of Vivekananda Road, Ashram Road and a part of Chanmari Road	1.5
27	A large part of Tarapu	0.68
28	part of Tarapur (including overbridge), Masimpur Road, a part of Karimganj Road and Chidukhandi one each	0.90
Total	Silchar Municipal Board Area	15.75

1.2.3 OUTGROWTH AREA WITHIN MPA*Table 6 Outgrowth's area in SMPA*

Sr.No.	Description	Area (sq.km)
1	Silchar XI (OG), Ward no.-29	7.07
2	Tarapur VIII (OG), Ward no.-30	3.16
Total Area		10.23

*(Source: Compiled by Consultant)***1.2.4 VILLAGES WITHIN SILCHAR MPA***Table 7 Villages of Silchar Revenue Circle*

List of Villages under Silchar MPA					
Sr. No.	Village Name	Area (sq.km.)	Sr. No.	Village Name	Area (sq.km.)
1	Ambicapur Pt I	1.77	44	Indragarh Block	1.05
2	Ambicapur Pt II	2.40	45	Indragarhgrant	2.52
3	Ambicapur Pt III	1.94	46	Jaifarpur	2.29
4	Ambicapur Pt IV	1.75	47	Kachipur Pt I	2.41
5	Ambicapur Pt V	2.07	48	Kachipur Pt II	0.83
6	Ambicapur Pt VII	1.93	49	Kanakpur Pt I	1.59
7	Ambicapur Pt XI	0.27	50	Kanakpur Pt II	2.40
8	Arcuttepur Grant	0.01	51	Kasipur Grant	0.81
9	Badarpur Pt I	0.27	52	Kathal Grant	2.61
10	Badarpur Pt II	0.95	53	Kathal Grant	0.33
11	Badripur Pt IV	0.15	54	Kumarpur	0.92
12	Bahadurpur	1.18	55	Manikpur	0.07
13	Bajantipur Pt I	0.80	56	Masimpur Pt I (Maohimpur)	2.30
14	Bajantipur Pt II	1.90	57	Masimpur Pt II	1.49
15	Bajantipur Pt III	3.56	58	Masughat	1.83
16	Balighat	0.83	59	Merua Grant	2.57
17	Bangala Ghat Grant	0.43	60	Neairgram Pt I	0.34
18	Bangalaghat Pt II (Bagaighat)	1.30	61	Niz Chatia Howar	1.01
19	Banglughat Pt I (Baglughat)	0.68	62	Nutan Kanchanpur	1.19
20	Bariknagar Pt I	1.24	63	Pachim Biroinhowar	0.77
21	Berenga Pt I	1.37	64	Rakhai Khali Par Pt I	1.53
22	Berenga Pt II	2.18	65	Rakhalkhalerpar Pt II	1.86
23	Berenga Pt III	2.57	66	Rangpur Pt III	2.44
24	Berenga Pt IV	1.88	67	Rongpur Pt I	1.93
25	Berenga Pt V	2.32	68	Rongpur Pt II	2.21
26	Borakhai Grant	1.60	69	Rongpur Pt IV	2.57
27	Chengduar Pt I	1.46	70	Sabashpur (Sabujpur)	0.55
28	Chenglorie Grant	2.52	71	Saidpur Pt I	1.20
29	Dadripur Pt V	1.91	72	Saidpur Pt II	0.71
30	Dakhin Krishnapur	0.50	73	Saidpur Pt III	0.17
31	David Sonapur	0.48	74	Silcoorie Grant	4.01
32	Dhamalia	1.64	75	Srikona Grant	1.18
33	Digorsrikona Pt II	0.35	76	Srikona Pt I	0.91
34	Dudhpatil Grant	0.44	77	Tarapur Pt I	2.33

35	Dudhpatil Pt III	0.16	78	Tarapur Pt II	2.94
36	Dudhpatil Pt IV	1.78	79	Tarapur Pt III	3.50
37	Dudhpatil Pt VII	1.08	80	Tarapur Pt IV	2.80
38	Elgin Grant	1.59	81	Tarapur VIII	2.65
39	Gangapur	3.69	82	Tupkhana Pt II	1.40
40	Gossaipur Pt I	0.25	83	Ujan Gram	0.21
41	Gossaipur Pt III	0.58	84	Uttar Krishnapur Pt II	1.45
42	Gossaipur Pt V	0.56	85	Uttar Krishnapur Pt IV	0.60
43	HatirharPtl (Matirhar Pt I)	0.12	TOTAL AREA		124

1.2.5 CENSUS TOWNS

Table 8 Area of Census Towns

Sr.No.	Description	Area (sq.km)
1	Ambicapur Pt VIII (CT)	2.28
2	Ambicapur Pt VI (CT)	4.13
3	Ambikapur Pt. X (CT)	2.99
4	Dudhpatil Pt VI (CT)	1.71
5	Dudhpatil Pt V (CT)	3.49
6	Tarapur Pt VI (CT)	3.39
7	Tarapur VII (CT)	1.58
8	Tupkhana Pt I (CT)	1.31
9	Uttar Krishnapur Pt III (CT)	1.38
10	Uttar Krishnapur Pt. I (CT)	1.77
Total Area		24.04

(Source: Compiled by Consultant)

1.2.6 TOTAL MASTER PLAN AREA

Table 9 New GIS Based Master Plan Area for 2045

Sr.No.	New GIS based Silchar Master Plan Area	Area (Sq.km)
1	Silchar Municipal Board (28 Wards)	15.75
2	2 Outgrowth (Wards 29 & 30) (OG)	10.23
3	10 Census Towns (CT)	24.04
4	85 Villages (Rural)	124.00
Total New GIS Based Silchar Master Plan Area		174

(Source: Compiled by Consultant)

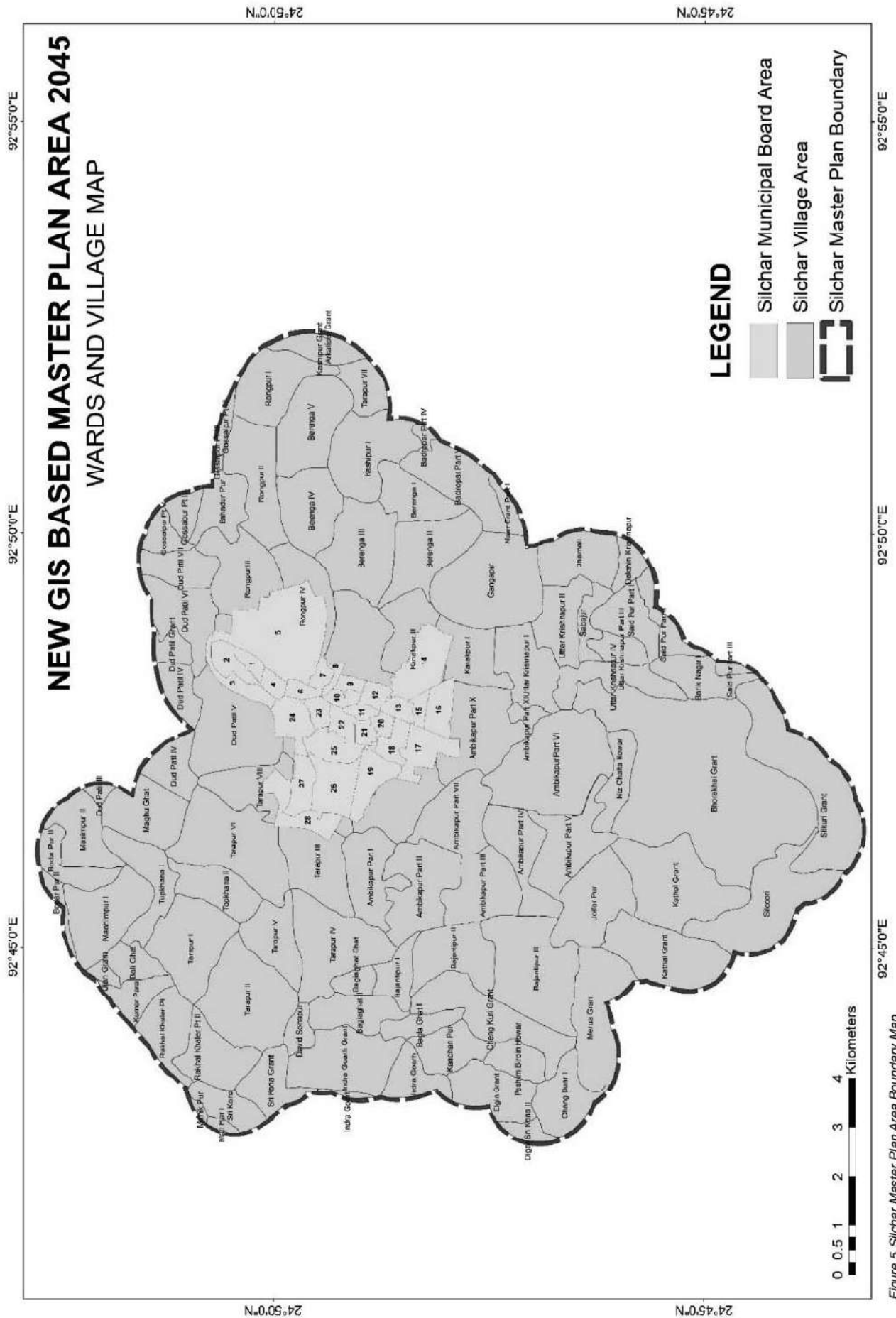
1.2.7 IMPORTANT LANDMARKS AND WATER BODIES FROM TOWN

Table 10 Important Landmarks and its distance from Town

Sr.No.	Description	Name	Dist. (km.)
1	State Headquarters	Dispur, Guwahati	390 km
2	District Headquarters	Silchar	within SMPA
4	Nearest City (having 5 lakh & above Population)	Guwahati	390 km
5	Nearest Railway station	1. Silchar	2 km
6	Nearest Airport / Air strip	Kumbhirgram (Silchar)	26 km

Table 11 Nearness / Distance of Major River / Canal / Coastline from Town

Sr.No.	River	Location from the town
1	Barak	Runs through Eastern and Southern part of Town
2	Ghagra (Barak tributary)	West side
3	Badri (Barak tributary)	East Side



1.3 HISTORY OF TOWN AND SURROUNDING

Silchar originated only for the cause of the British ruler who annexed Cachar to their territory in 1832. The name is a combination of two word- "Sil" means Stone and "Char" mean River Island. The British used the place as a river port for exporting tea and raw materials. Silchar was connected by railway line with the rest of the state in 1895. The first municipal activities of the town stated as early as 1833, when a station committee was formed with few nominated members. It had its first municipal corporation in 1893.

Most of the residents living in the Silchar city are Sylheti, who were mainly migrants from the former Sylhet district of undivided India. Apart from them, the region also has a confluence of other tribes and communities, common to the state of Assam in general. In recent times, there has been a wide entry of people from the neighbouring smaller areas, for educational and employment prospects, making the city one of the most highly populated areas in Assam.

1.3.1 BRIEF HISTORY OF DEVELOPMENT OF TOWN

Silchar has grown from a sleepy hamlet to an urban conglomeration in a period of over one hundred and fifty years. It began with Janiganj Bazar which was settled upon the mirasdar of Ambicapur estate towards the end of the eighteenth century by the Raja of Cachar, Maharaja Krishnachandra.

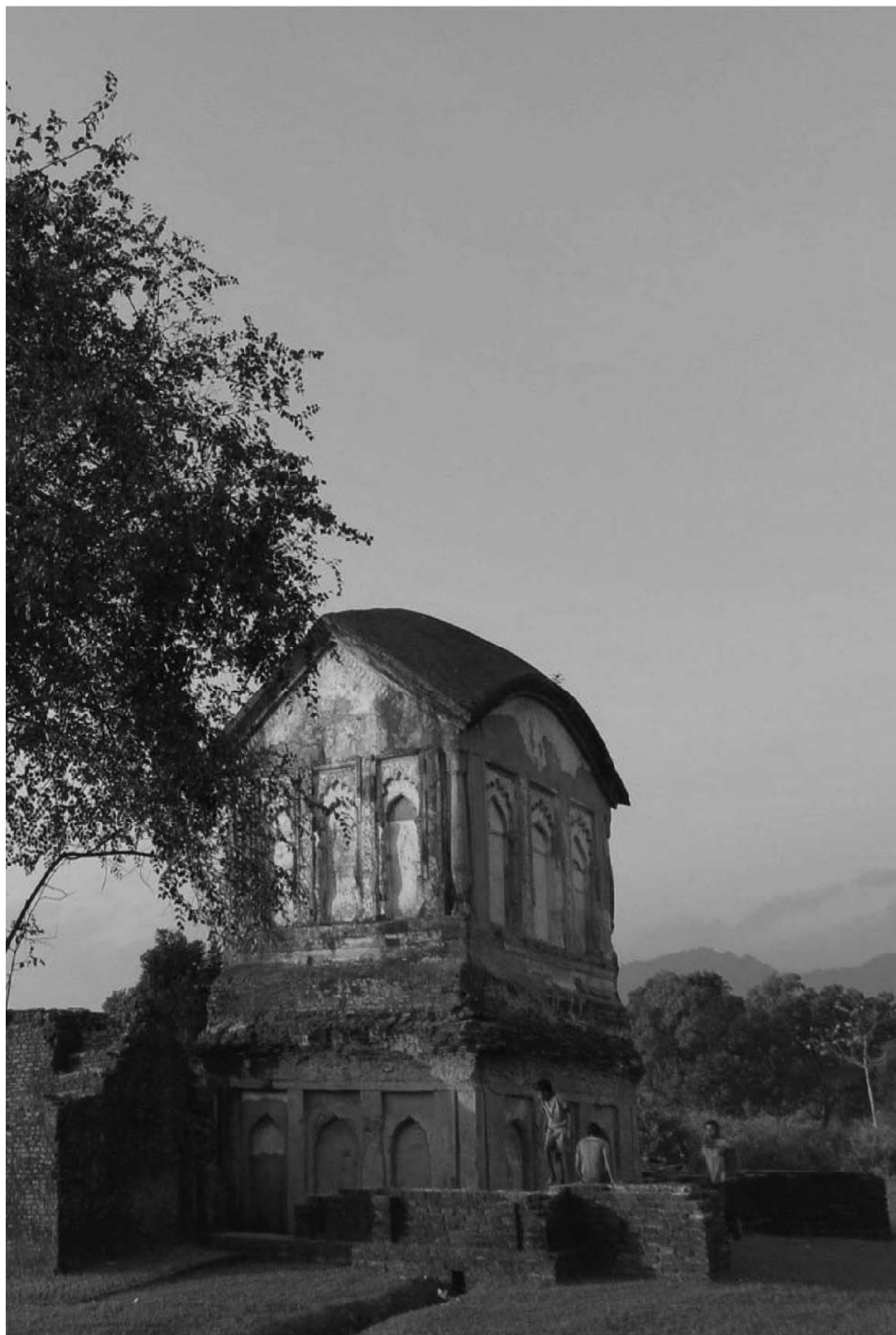
The tract was resumed by the last Raja Maharaja Govinda Chandra in 1817 AD. In the years of turmoil, which preceded the British annexation of Cachar, the capital was shifted from Khaspur, first, to Badarpur, and then, to Haritakar where the last Raja, Govinda Chandra was assassinated in 1830 AD. Despite its location on the flattened bank of Barak and its tremendous prospects of commerce, Silchar was not endowed with any special status, either political or commercial or cultural, in the precolonial period. The fact that not a single historical site- administrative or religious – of the pre-British time has so far been unearthed in Silchar town or its outskirt, despite excavations for constructions of official or private buildings, is a pointer to its desolate isolation. However, there are some evidence of settlement.

Captain Stewart (1857-67) took keen interest in urban land settlement and development of civic amenities. The medical centre established by Fisher in 1835 was raised to the status of a civil hospital in 1864. Some schools and markets were established by Stewart. His successor, John Edgar (1867-72) prepared a blueprint for the planned development of the town. He divided it into several sectors and metalled the roads. Many office buildings, residential quarters, circuit house and the deputy commissioner's office were constructed under his supervision.

The establishment of the district level public works department facilitated the constructions. The jail was shifted to its present site, and the native traders from 84 Sylhet, Dacca and other places were encouraged to settle down in



Figure 6 Kachari Fort, Silchar



Fatak Bazar Sadarghat area on favourable terms of landholding. The district headquarters was connected by roads with the interiors of the district.

The ferry services were introduced in Sadarghat and Annapurnaghat with Rangpur and Dudpatil respectively. The head post office was established at Silchar in 1852 and the daily mail services were maintained with Hailakandi, Katigora, and Haflong. The General Steam and Navigation Company introduced steamer service between Calcutta and Silchar, via East Bengal, in 1850s. The Steamer ghat area became the busy and bubbling part of the town. The extension of Assam-Bengal railway connection to Silchar with the outer region by rail towards the end of 19th century promised a new phase in the urbanization of Silchar. In the meantime, the importance of Silchar grew further as a commercial and administrative station since the beginning of British relations with the Lushai Hills (Mizoram).

A series of military expeditions were dispatched from Silchar against the Lushai chiefs during 1870-90. The headquarters of the Surma Valley Military Police Battalion and the office of the Commissioner, Surma Valley and Hills Division were established in Silchar to deal with the problem of the neighbouring hill tribes effectively. Gradually, Silchar gained importance as a strategic and military station. The launching of Tea- estates in 1856 in Cachar ushered in a new era in the socio-economic life of the valley, after which Silchar town virtually became a planter's town.

On 29th November 1865, Silchar town was constituted into a municipality under the Bengal District Town Improvement Act (1864). The Municipality had eight European and three native members, besides a Chairman, and a Vice-Chairman. The District Magistrate was the Chairman, while the Executive Engineer, the Superintendent of Police and another Magistrate were among the members.

But the post-colonial days seem to bring no change in the fate of the town. Moreover, whatever was done during the colonial days was done properly, and in town planning the British had shown sincerity and farsightedness. But seven decades after the end of the colonial rule, Silchar could hardly emerge as a modern urban centre, capable of sustaining its economy and providing sustenance to its feeder rural bases.

Silchar, as a matter of fact, was a pre-industrial, non-agricultural, pre-modern city during the colonial days, and the situation has not changed much in the post-colonial era.

(source: Susmita Bhattacharjee)





1.4 CLIMATE

1.4.1 TEMPERATURE

Silchar has a borderline tropical monsoon climate (Köppen Am) slightly too hot in the “winter” or “cool” season to qualify as a humid subtropical climate. During these months mean maximum temperature does not generally come below 31°C. These months can be treated as hottest month for district in each year. The high percentage moisture in the atmosphere makes the weather irritating. The percentage of relative humidity in this month is between 85 and 88. In the month of October, the temperature gradually comes down and night becomes quite cool and pleasant. In Cachar district the cold season start from the beginning of November when both the day and night temperature begin to fall considerably. From the last of December to January, the cold reaches the minimum degree.

This is coldest period of the year when the mean daily minimum temperature generally comes below 13°C. From the end of February, the mercury level gradually goes up and in July, August and September the temperature reaches the maximum point.

During this “cool” season the weather is generally warm and dry with cool to mild mornings; however, the “wet” season begins early as the monsoon moves into the region during April, with the result that for seven months of the year Silchar has very hot and humid weather with heavy thunderstorms almost every afternoon until the middle of October, when there is usually a brief period of hot and relatively dry weather before the “cool” season sets in during November.

(Source: Meteorological Department of India)

Table 12 Month wise min. and max. temperature

Month	Min	Max.	Month	Min.	Max.
January	12.1	24.5	July	25.1	31.4
February	14.1	26.4	August	25.2	31.9
March	17.7	29.6	September	24.6	31.5
April	21	30.5	October	22.9	30.9
May	23	31	November	18.6	29.1
June	24.6	31.5	December	13.9	26.1

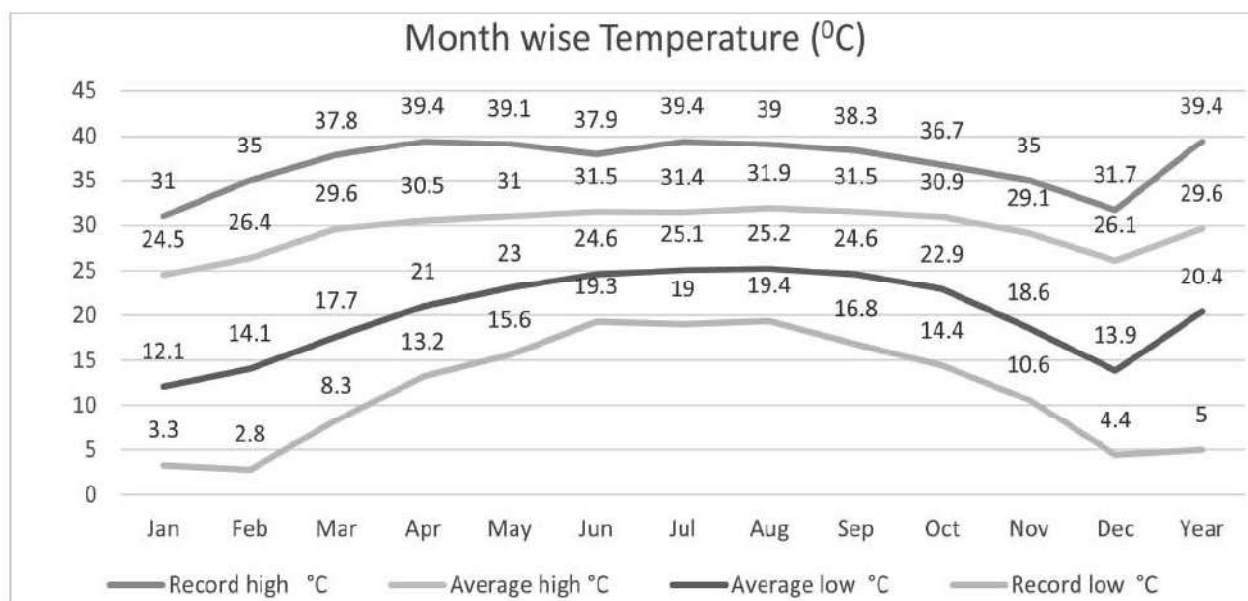


Figure 7 Month wise min. max Temperature

1.4.2 RAIN FALL

Generally, the rainy season commences from the beginning of July and continues up to the last week of August but sometimes it may advance by a fortnight and extended even up to month of September. There is no rainfall in the month of December to February. These are dry months of the year. As per Statistical Handbook, 2012 in Cachar district average monthly rainfall is found to be highest in the month of July 2011 with 480.1 mm whereas the lowest rainfall This is coldest period of the year when the mean daily minimum temperature generally comes below 13°C.

The floods which are so frequent in the Brahmaputra and the Barak cause tremendous change of the river course and raise the riverbeds by depositing sediments carried from the upper reaches. This is a common feature of floods in big rivers. The miseries caused by the Barak and its tributaries are beyond description. Villages situated on the riverbanks gets submerged, paddy fields into vast sheets of water, standing crops are destroyed, cattle are swept away and hundreds of cultivators, fisher men and other people living in these areas are rendered homeless. All-important link of communications are snapped and life hinges on the relief provided by the Government and public. After flood, people suffer from epidemics. The untold miseries spread all over the areas. Due to flood the paddy fields become unfit for cultivation due to spread of sand.

Table 13 Average rainfall Silchar city

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Rainy day precip.	1	3.9	8.5	12.6	16.2	21.5	22.5	19.3	15.5	7.7	2.4	0.6
Avg. Monthly precip.	12.1	44.2	229.3	258.1	460.7	612	503.2	427.7	366.5	168.7	33.3	12.8

(Source: Meteorological Department of India)

Table 14 Rainfall data of Silchar city

Year-2006 Total Rainfall (mm)	Year-2007 Total Rainfall (mm)	Year-2008 Total Rainfall (mm)	Year-2009 Total Rainfall (mm)	Year-2010 Total Rainfall (mm)	Year-2011 Total Rainfall (mm)	Year-2012 Total Rainfall (mm)
2066.1	33456	3941.31	3043.66	4752.98	2653.10	3513

(Source: Meteorological Department of India)

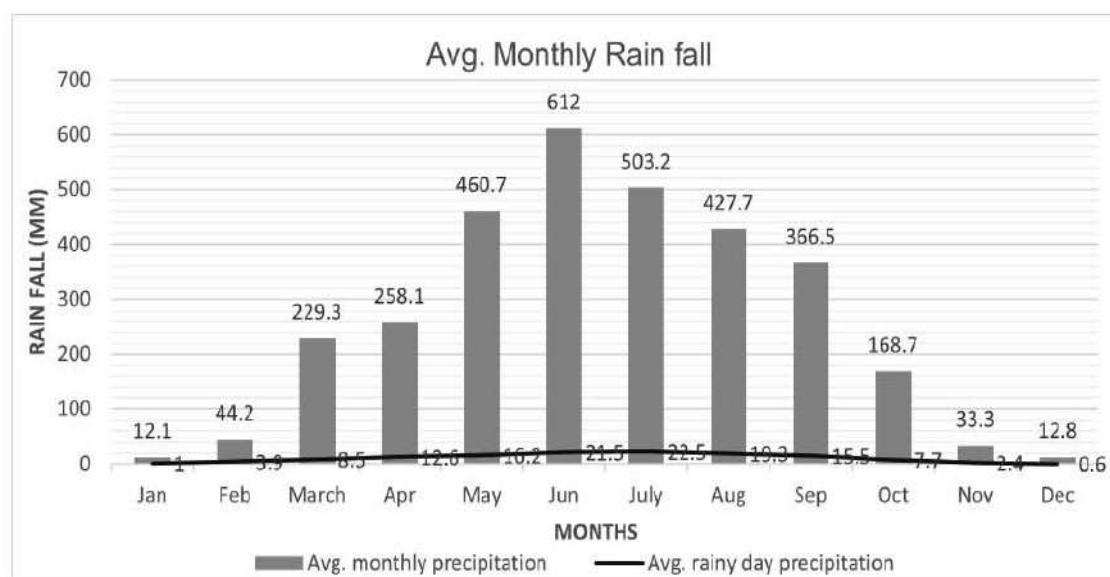


Figure 8 normal monthly rainfall (mm)

1.5 PHYSICAL SETTING

1.5.1 DISTRICT GEOGRAPHY

The geography of district is mostly made up of plains, but there are a number of hills spread across the district. Cachar receives an average annual rainfall of more than 3,000mm. The climate is Tropical wet with hot and wet summers and cool winters. The climatic condition of this district is significant for humidity and it is extremely beyond the limit. And because of this reason, during summer, it is intolerable.

During the winter season, it is as cold as other parts of north India and the rainy season of this district starts from May and ends after October. Bengali is the status of Official Language in this district with majority of the people primarily speaking Bengali and Sylhette, a Bengali-dialect. Apart from Bengali, other minority languages spoken in the district include Meitei Manipuri, Bishnupuriya Manipuri, Dimasa and Rongmei-Naga. There are also few Mizo, Kuki and Khasi people who form microscopic minority.

Among the 15 agro-climatic regions of the country, categorized/identified on the basis of homogeneity in agro- characteristics, Cachar falls in the Barak Valley zone. The agro climatic conditions of the district are conducive for various agricultural activities like development of the plantation crops viz., tea, rubber, cashew, coffee, areca nut, coconut and also aromatic plant like Patchouli. The types of land available in the district are classified as: medium land-69048 Ha, high land-11642 hectares, low land-19512 hectares, very low land-10792 hectares and beel area -4735 hectares.



Figure 9 Rhuban Hill Range on South of SMPA

Crops cannot be grown in more than 20 percent of geographical areas of the district during April to September due to water stagnation. On the other hand due to lack of rain from November to April, most of the cultivable land remains fallow during the period. The district falls under Barak river basin. The soil of the district is clayey loam, alluvial and red alluvial. The soil is highly porous and therefore, lacks moisture retention capacity and is susceptible to erosion. The water level in the district is very low. The district has a total forest cover of 2225 sq.km area which is 58.77 percent of its total geographical area as per the estimates of Forest Survey of India. The dense forest cover in the district is 45 percent while 55 percent of the forest cover is under open forest. The District is a heterogeneous plain composed of both low lands and high hills and level plains. Actually the whole of the District lies at the foot hills of the nearby states of Manipur and Mizoram and that of the Dima Hasao district of Assam.

The Bhuban ranges on the southern side of the district covers a considerable area. Bhuban Pahar is famous for the Shiva temple situated at the top of this hill, where thousands of people from various parts of the state visit during Maha Shivratri and Purnima to worship Lord Shiva. This hill is situated almost 50 km away from the town Silchar of Assam. This is a very significant pilgrimage place of Assam.

The river Barak, along with the tributaries, Jiri, Chiri, Madhura, Jatinga, Sonai, Katakhal and others are flowing through the centre of the plain valley of the district. Explorations by ONGC in different parts of Cachar have indicated that there are huge mineral oil and gas deposits in various parts of the district, mainly in the Adamtilla area.

The district of Cachar is the home of a large number of Tea Gardens of the State. Lakhipur is the richest pine - apple growing area in the country, again on the bank of Barak.

1.5.2 PHYSIOGRAPHY

The topography of Silchar town is mainly of a highly undulated and broken nature. The Silchar town area is situated in an alluvial flat plain, spotted with swamps and intersected by stream and surrounded by isolated small hills. River Barak flows and cause heavy flood to the town during rainy season. Due to presence of Ghagra river in the west side of the town and other streams, inundation is common phenomenon.

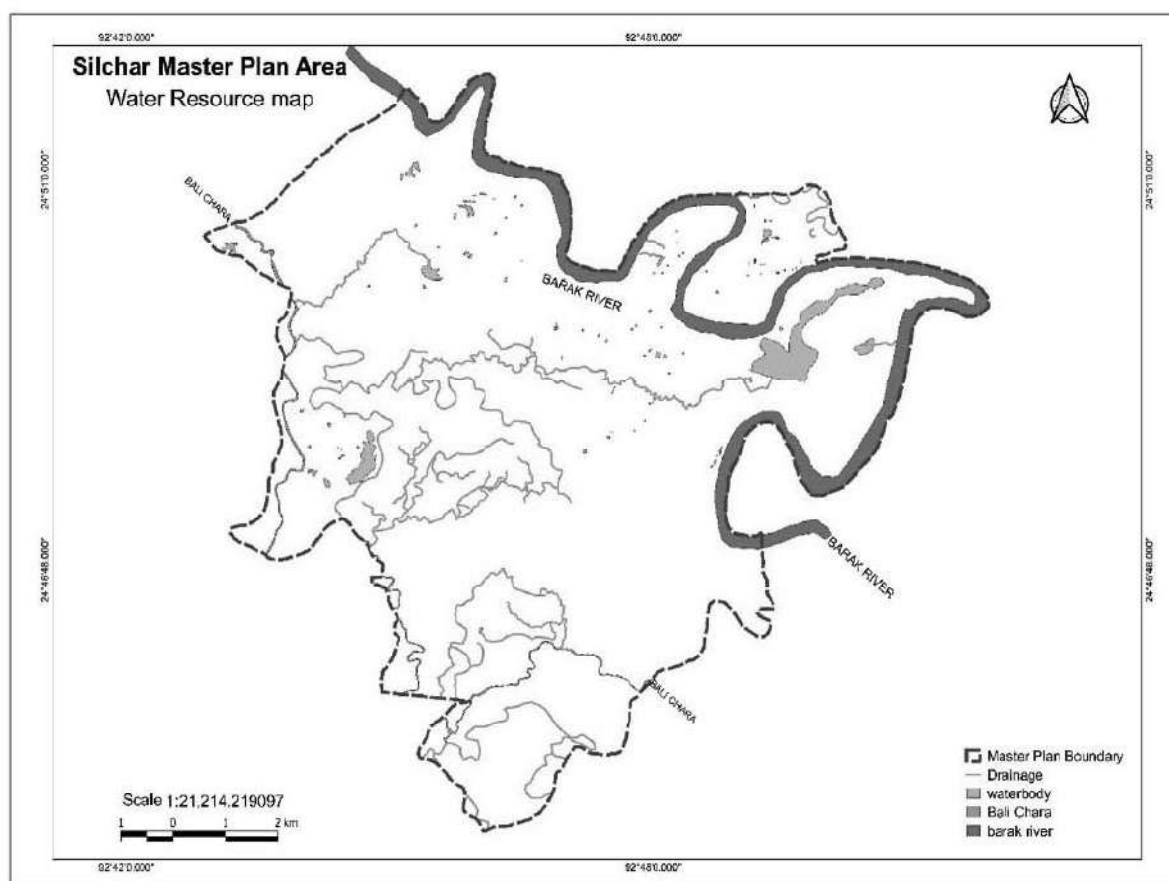


Figure 10 Water resources map of SMFA

The entire valley of Barak which sustains a few towns and other commercial centres has a distinct linguistic, cultural and geographical entity. Barak valley is a low-lying area where the deposits of alluvium layers are in plenty. The area east of the Jamuna-Padma-Meghna line forms a great embayment of low-land extending up to the Surma Valley between the Shillong plateau and the parallel ranges which extend from east of Comilla to beyond the Surma border. Silchar town lies in the Barak Valley and is surrounded by the river Barak from three sides. It stands at the height of less than 30 m above the sea level.

1.5.3 TOPOGRAPHY

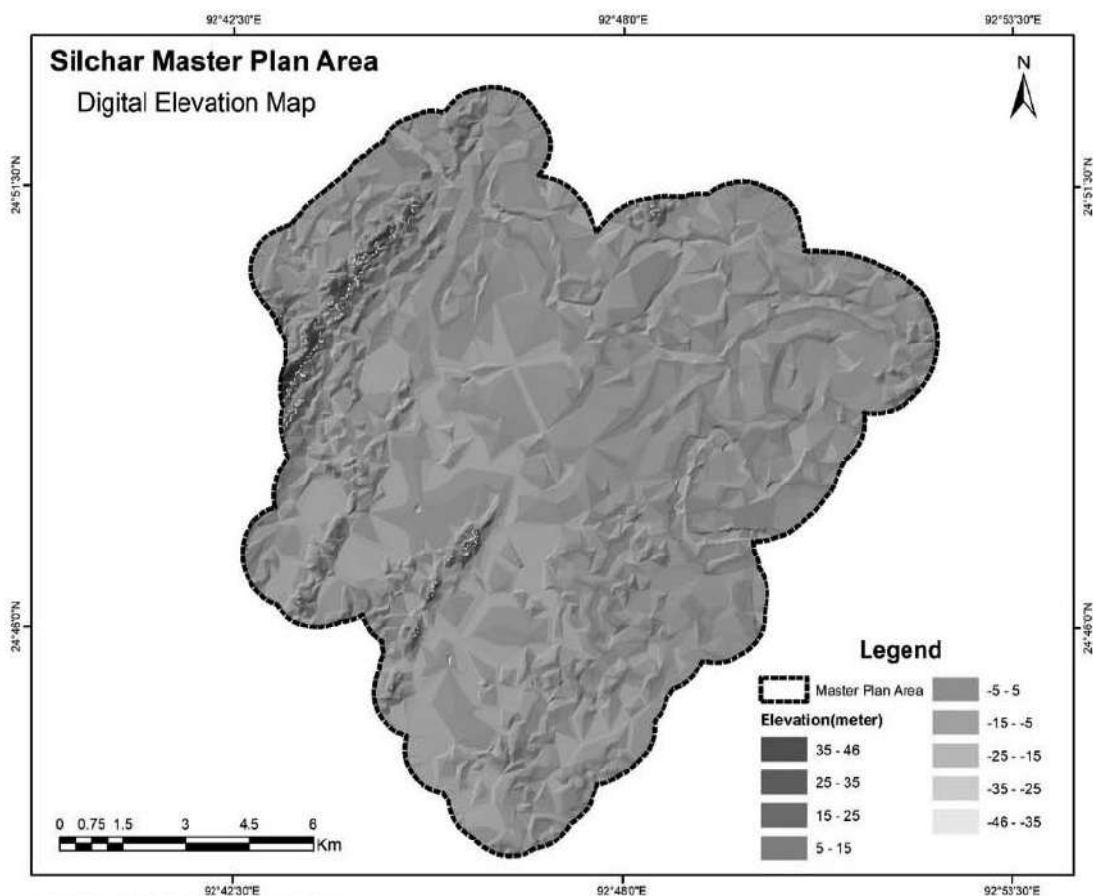


Figure 11 Digital elevation Map of SMPA

Table 15 Elevations of Silchar

Silchar MPA Elevation			
Sl. No.	Elevation(m)	AREA (sq. km)	% of MPA
1	-46 to -35	57.15	33
2	-35 to -25	56.76	33
3	-25 to -15	37.89	22
4	-15 to -5	14.15	8
5	-5 to 5	4.10	2
6	5 to 15	2.05	1
7	15 to 25	0.81	1
8	25 to 35	0.49	0
9	35 to 46	0.25	0
Total		174.00	100%

The river Barak has deposited different layers of shales and mud which have formed the hard sub-soil of the town. Apparently, it appears that the town is located on a flat land, but physio graphically, it has been found that there are many elevations and depressions within the town. The Tikarbasti is the highest elevated point (26.7m), Railway station (23.3m), Municipal area (old maidan, 22.9m), Central Road (22.2m) and Hospital Road (21.8m). The low-lying areas are Malinibeel (13-14m), Malugram 18m), Rangirkhari (19.6m), Tarapur (20m), Padma Beel (19.4m) and Link Road (21m).

The underlying sub-soil is hard, and it forms a thick blanket of mudstone that restricts downward percolation

of water. As a result, there is heavy runoff of water 57 during the normal rainy days. The water table is very deep which affects the availability of wells here. The ponds are abundant because of less percolation of water due to hard sub-soil.

1.5.4 SLOPE

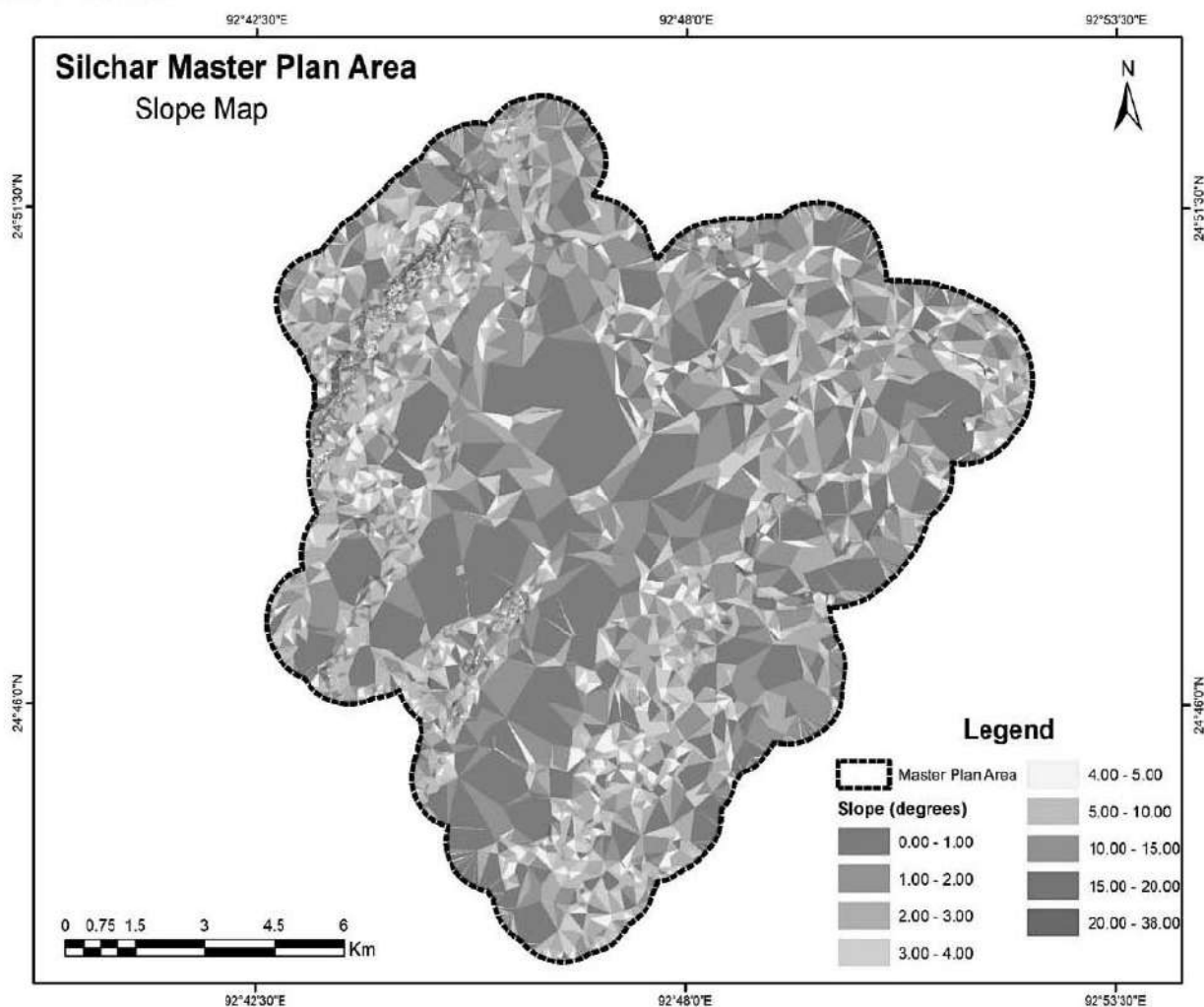


Figure 12 Slope map of SMPA

Table 16 Silchar slope percentages

Silchar Slope				Silchar Slope			
Sl. No.	Slope (%)	Area (sq. km)	% of MPA	Sl. No.	Slope (%)	Area (sq. km)	% of MPA
1	0 to 1	30.75	18	6	5 to 10	29.16	17
2	1 to 2	16.59	9	7	10 to 15	4.97	3
3	2 to 3	45.63	26	8	15 to 20	1.27	1
4	3 to 4	18.75	11	9	20 to 38	0.31	0
5	4 to 5	26.17	15		Total	173.64	100

Around 53% of the MPA area is plain i.e. slope varies between 0-1% interspaced with slope of 1-3%. In the Northern-West corner towards Barak river around 6 sq.km. of small hill terrain area located where the slope is >10 degree. Maximum degree of slope falls in the bracket of >20 degree, which covers 0.31 sq.km of MPA area and the average slope value of 2 to 3 degree as per digital slope model. Maximum master plan area land cover (i.e 26%), falls under the slope category of 2-3 degree which covers 45.63 sq.km land of Silchar MPA.

1.5.5 ASPECT

The aspect direction is distributed almost uniformly all across the MPA. Maximum aspect direction falls under SE area that is 22.36 sq.km. i.e.13% of MPA and minimum aspect direction is in North side which is of 5.26 sq.km. i.e. 3% of MPA. The distribution of various slope types and aspect direction of the district is given in Table below.

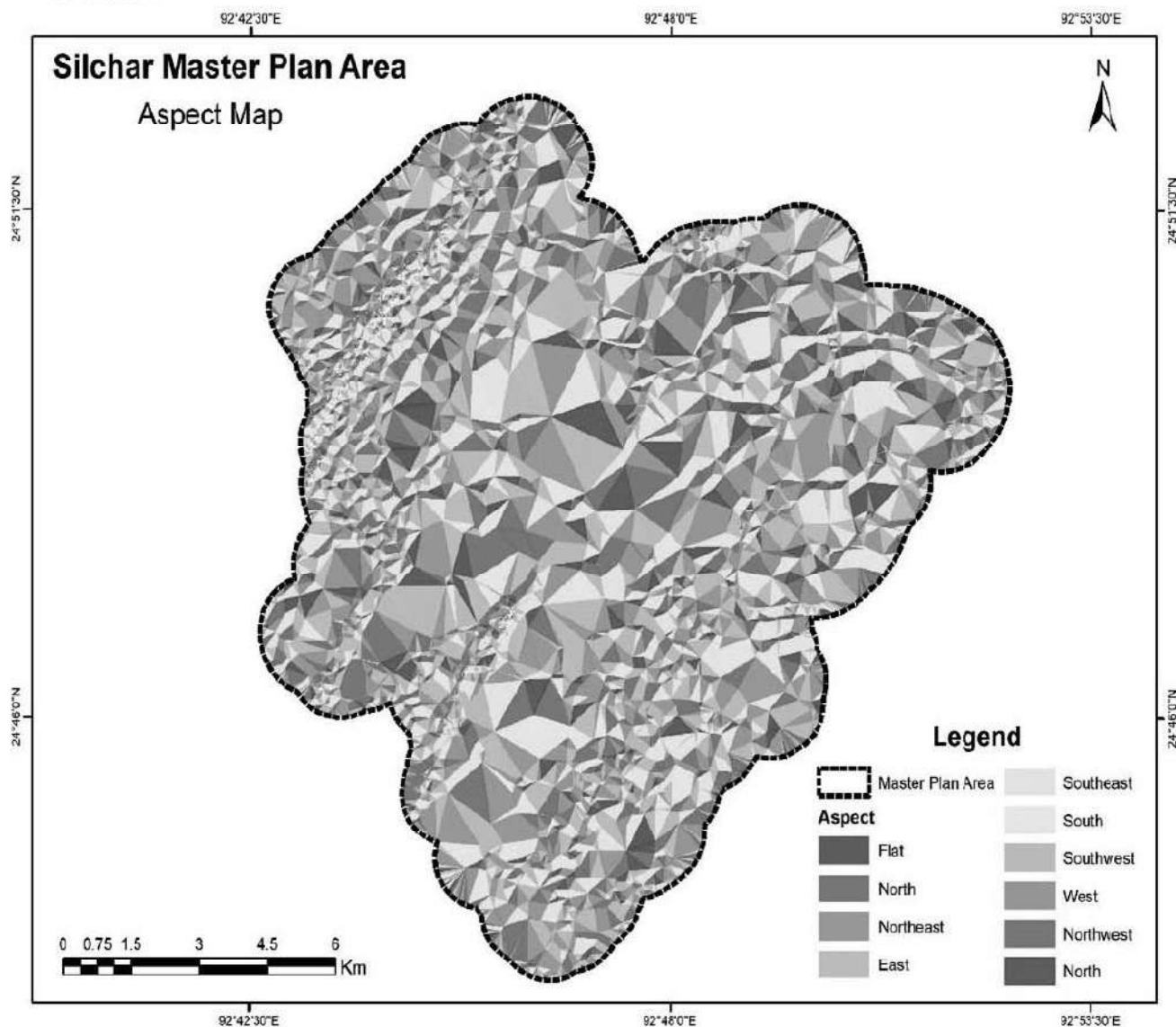
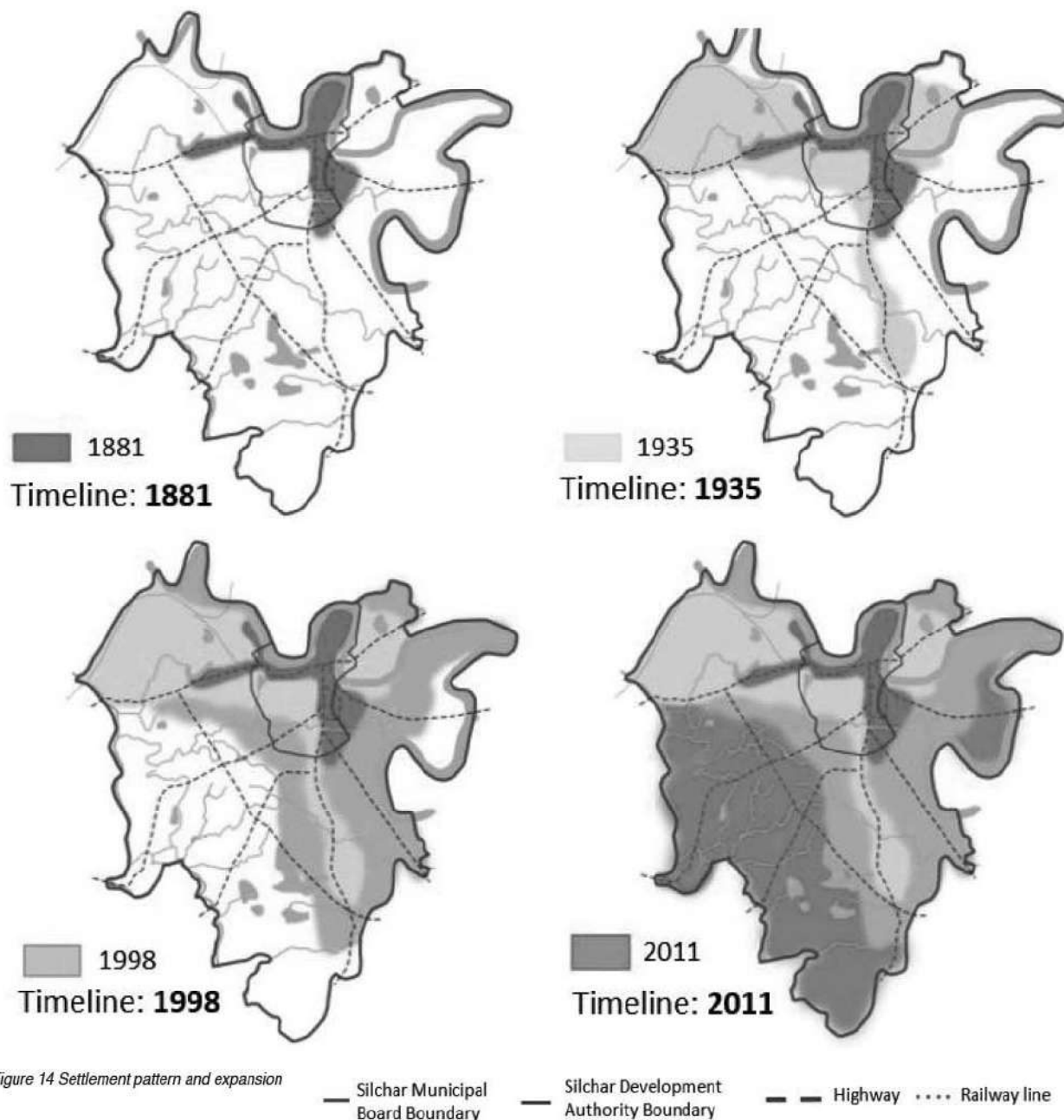


Figure 13 Aspect map of SMPA

Silchar Aspect				Silchar Aspect			
Sl. No.	Direction	Area(sq. km)	% of MPA	Sl. No.	Direction	Area(sq. km)	% of MPA
1	Flat	19.36	11	6	S	17.79	10
2	N	12.50	7	7	SW	19.13	11
3	NE	19.04	11	8	W	17.94	10
4	E	18.37	11	9	NW	21.84	13
5	SE	22.36	13		Total	173.64	100

1.6 URBAN MORPHOLOGY AND EVOLUTION

1.6.1 SETTLEMENT PATTERN AND EXPANSION OF TOWN



Year	City Population	Description
1881	6,567	During the British rule, ships were docked at the bank of the river Barak, market got developed and became a major place of economic activity, known as Janiganj Market.
1935	13,069	The Central Road, Nazirpatty, Premtola, Tulapatty or Narshingtola emerged as flourishing localities between these settlements. Tarapur, Malugram and Itkhola were among the old settlements.
1998	1,15,483	Many Engineering, Medical colleges were established, and industries got started during this period. Urban area expanded in a very irregular manner.
2011	4,71,709	Being an economic and institutional hub, the city expansion was developed; with the opening of airport and new railway station.

1.6.2 TRADE AND COMMERCE

In the 1950s per capita income in Assam was little higher than in India. In 2000-01, it was INR 10,198 at current prices, almost 40% lower than that in India. According to the recent estimates, per capita income of Assam has reached INR 6756(1993-94 constant prices) in 2004-05 which is still much lower than India's.

According to recent analysis, Assam economy is the signs of improvement. In 2001-02, the economy grew (at 1993-94 constant prices) at 4.5% to fall to 3.4% in the next financial year. During 2003-04 and 2004-05, the economy grew (at 1993-94 constant prices) more satisfactorily at 5.5% and 5.3% respectively. The advanced estimates placed the growth rate for 2005-06 at above 6% Assam's GDP in 2004 is estimated at \$13 billion in current prices. The average annual growth rate of agriculture, which was only 2.6% per annum over 1980s, has unfortunately fallen to 1.6% in the 1990s. Manufacturing sector has shown some improvement in the 1990s with a growth rate of 3.4% per annum than 2.4% in the 1980s. Since past 5 decades, tertiary sector has registered the highest growth rates than the other sectors, which even slowed down in the 1990s than 1980s.

1.7 INFRASTRUCTURE AND CONNECTIVITY

Availability of good infrastructure is of great importance for any region to strengthen its integration within itself, its neighbours and with the rest of the country. The infrastructural facilities available in Silchar are as follows:

1.7.1 COMMUNICATION

Telecommunication plays a vital role in connecting people with the rest of the world. Cellular mobile services were introduced in the town in the year 2006. BSNL is the major telecom operator in the town. Under the five exchanges situated within Silchar, the number of landline connections and Broadband connections provided by BSNL are 9794 and 3095. The number of pre-paid mobile subscriber figures of BSNL is approximately 4,90,596 and that of post-paid is 19,624.

1.7.2 BANKING

Banks have an important role to play in stimulating economic development of an economy. In Assam, the networks of schedule commercial banks have widened the horizon of social banking policies and programmes, which support all the vital sectors of the economy. Registered with the District Consultative Committee, there are altogether 27 banks having 50 branches in Silchar block including Silchar Municipal area. Out of this, 19 are Nationalized Banks, 1 RRB, 1 Co-operative Bank and 6 are private banks. The CD Ratio of Cachar district is 37.88%.

1.7.3 ELECTRIFICATION

The power supply position in the town is moderate. During the summers the problem of shortage of power in the town is felt due to less availability of power in comparison to its demand. During the hot summer days the demand for power remains on an average 28 MW and on the supply side there is full availability of power in 75 percent of the days and in the other 25 per cent days the supply varies between 30 per cent and 80 percent of the total demand. Total number of domestic connections in the town is 31599, commercial connection is 7074, number of connection in small industries is 130 and general purpose power supply connection is 693.

¹The data related to mobile connection is of Cachar district, as separate data of Silchar could not be availed and data in this paragraph is as on 26/05/2015.

1.7.4 POST OFFICE

There is one main post office in Silchar. Under it the total number of sub-post offices and branch post offices are 52 and 247 respectively.

1.7.5 PUBLIC LIBRARY

There two public libraries in Silchar town. One is run by the State Government, named the District Library and the other one is Arun Chanda Library which is run by the Silchar Municipality. The number of books in the District Library is 68,666 (as of 31/03/2012) with 7950 registered members up to 31/03/2013. New books added in 2013 (upto 20/02/2013) is 3127. Average daily reading response (number of persons) in the library is 16. The total number of books in Arun Chanda Library is 1,257 having a 225 number of registered members.

1.8 CONSTRAINTS AND POTENTIALS FOR THE GROWTH

Silchar has huge urban population but it lacks the basic amenities required for a decent urban living. Thus, the urban dwellers lack minimum standard of living. Though the town is in developing stage, but proper infrastructure facilities will uplift its condition. It is well connected with railway lines and road networks which make it accessible to many other major cities of the country as well as towns to smaller villages. These linkages boost revenue generation in the region giving chances for the development. The town and its surrounding fringe areas have the potential in tourism but due to its mediocre facilities, make it constraints for the development.



India Club, Silchar

1.9 EXISTING MASTER PLAN-2016 AND LAND USE MAP

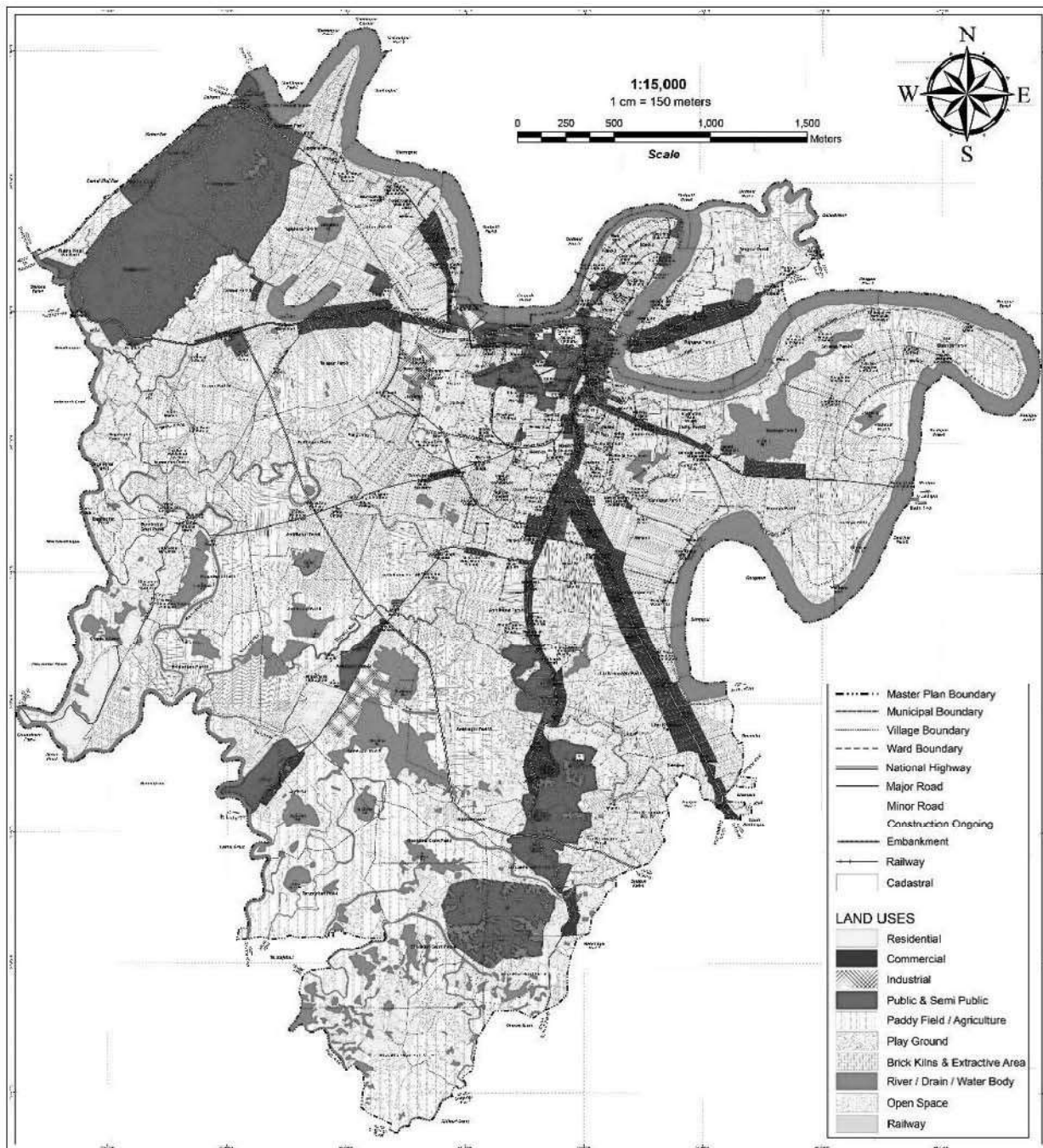


Figure 15 Landuse Map Master Plan-2016



(Sources: Office of the Deputy Director Town and Country Planning (TNCP), SILCHAR)

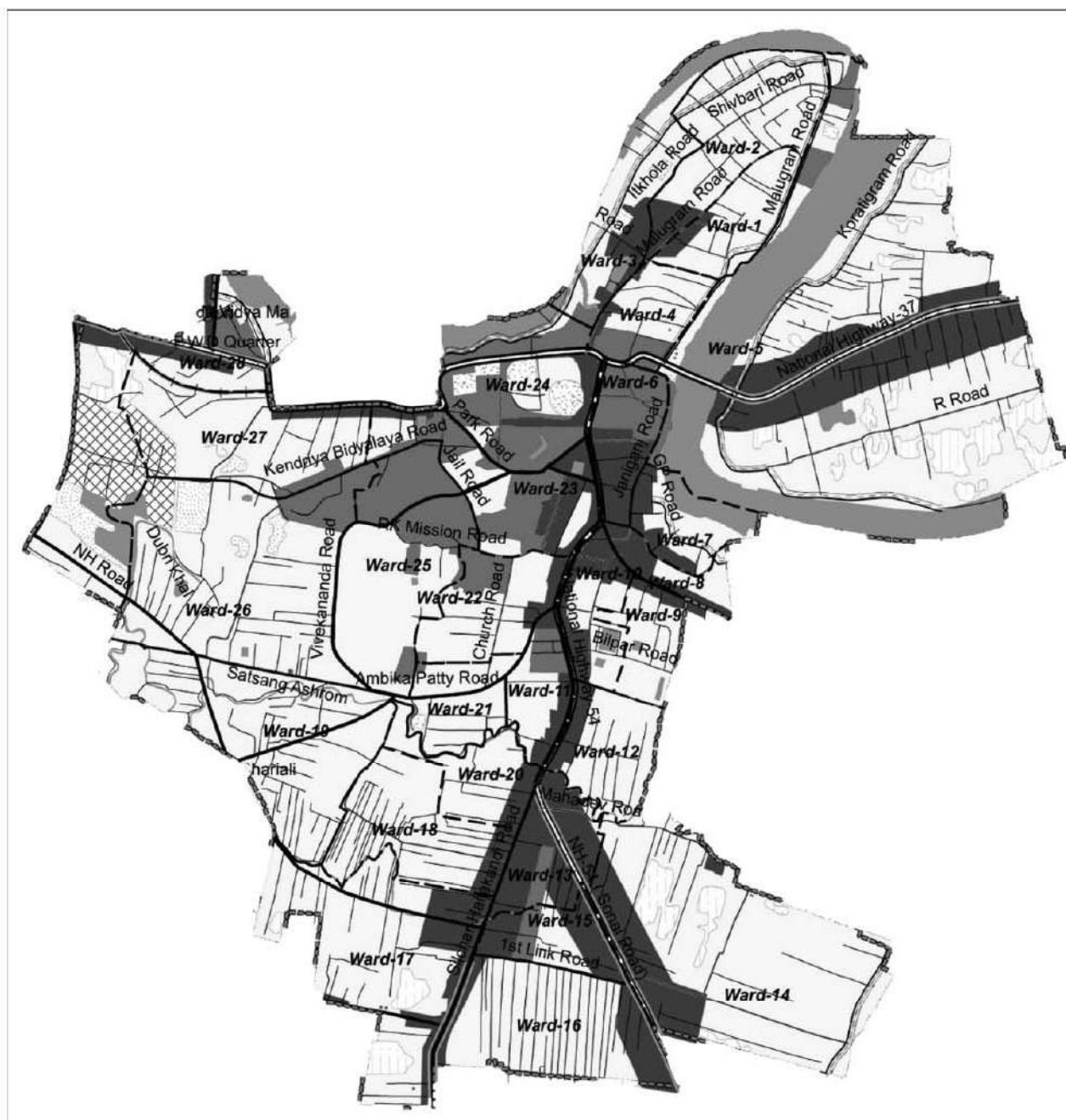
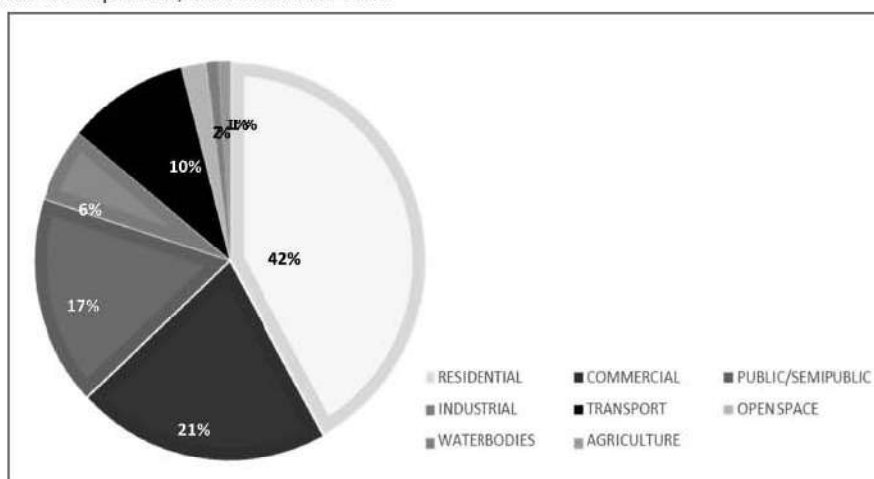


Figure 16 Existing land-use map of SMB, under Master Plan - 2016



(Sources: Office of the Deputy Director Town and Country Planning (TNCP), SILCHAR)

Table 17 Existing Master Plan Land Use coverage

Sl. No.	Uses	Area In (Sq.Km)	%Age Of Total
Area			
1	Residential	37.23	33.08
2	Commercial	5.73	5.09
3	Public/Semipublic	12.86	11.43
4	Industrial	0.90	0.80
5	Transport/Rlys	11.50	10.23
6	Parks,Open Space	0.90	0.80
7	Drain,Waterbodies	10.56	9.38
8	Paddy/Agriculture/ Vacant Land	32.86	29.19
Total		112.54	100.00 %

Table 18 Existing Masterplan Landuse in Silchar MB Area

Sl. No.	Uses	%Age Of Total Area
1	Residential	42
2	Commercial	21
3	Public/Semipublic	17
4	Industrial	6
5	Transport/Rlys	10
6	Parks,Open Space	2
7	Drain,Waterbodies	1
8	Paddy/Agriculture/ Vacant Land	1
Total		100.00 %

Master Plan for 2016 has covered total 112.54 sq.km of area and has prepared comprehensive land use zones for entire Master Plan area. Out of total planning area residential zone has covered 33.08%, Commercial as 5%, Public-Semipublic as 11.43%, Transport and Railway by 10.23% and Industrial as 0.80%. Majority of that falls under Agriculture Paddy and vacant land which is 29.19%.



1.10 SILCHAR MUNICIPAL BOARD

The city of Silchar is the second largest city of Assam after Guwahati in terms of population and municipal area. The town of Silchar has tremendous commercial importance. It consequently witnesses the settlement of a sizeable population of traders from distant parts of India. The city has an airport and lies on both a rail head and national highways connecting Guwahati, Assam; Agartala, Tripura; Imphal, Manipur; and Aizawl in Mizoram state. Silchar is the most thickly populated town of South Assam in the Barak Valley. The total population of this town was merely 34 thousand in the year 1951 which increased to 1.15 lakhs in 1991 thereby showing an annual average growth rate of 6 percent over a period of 40 years. The population of the town increased to 1.42 lakhs and 1.72 lakhs in the year 2001 and 2011 showing an average growth rate of 2.3% and 2.1% respectively. An unprecedented annual growth rate of 10.5 percent was noticed only during the decade 1941-1951 mainly due to partition of the country. Even after 1951, immigration continued at varying rates. Added to the problem of refugee influx from the erstwhile East Pakistan (now Bangladesh) was the problem of migration from other parts of the North Eastern Region owing to social unrest. These factors together contributed rapid demographic change of Silchar. The area under Silchar Municipal Board (SMB) was only 10 sq. km. in 1971 with a density of 5260 per sq. km. in 1991 the area was increased to 15.75 sq. km. with the increased density of 7301 per sq. km. (Dey and Nayak, 1998). The number of holdings assessed to tax rose from 5137 in 1971-72 to 13,358 in 1994-95 and it is increased to 19563 till the year 2010 (Silchar Municipal Board, 2010).

There are 28 wards in the city and 2 Outgrowths (OG), namely, Tarapur VIII and Silchar XI. The outgrowth is a viable unit such as a village, clearly identifiable in terms of its boundaries and location. It possesses the urban features in terms of infrastructure and amenities such as pucca roads, electricity, taps, drainage system for disposal of wastewater etc., educational institutions, post offices, medical facilities, banks etc. The chairman is the head of the administration and presides over the meetings of the Board. The board consists of the Chairman, Vice-Chairman and 26 Ward Commissioner who are elected representatives of the 28 wards of the town. The Chief-Executive-Officer (CEO) oversees and administers the plan and execution of the various day-to-day activities of the board.

At present the Silchar Municipal Board consists of 28 nos. of wards with a population of 1,78,865 nos. (as per 2011 census) with 89961 nos. male and 88904 nos. female inhabitants. The child population is 16335 and the density of population is 10,973 persons/sq. kms with population growth of 0.93% and literacy rate being 90.93%. The area covered by the Silchar Municipal Board is 15.75 square kms.

The Board is entrusted with the maintenance of roads and drainage system, streetlight, medical and public Health facilities and providing water supply in collaboration with PHED to the inhabitants of Silchar town. Besides, it has also established and maintains some recreation parks, libraries, community halls and arranges the facilities for functioning of public market areas etc. It also maintains a sanitary branch to ensure proper hygienic conditions in the town and performs necessary activities related to sewerage management and solid waste management. Towards this end the board is engaged in door-to-door collection and disposal of garbage. The board is also engaged in slum improvement and among other activities has established community toilets.

The solid waste generated stands at 39 TPD with an average collection of 33 TPD by Silchar Municipal Board. 85% of total households are covered by door-to-door collection of garbage.

The Municipality has various sources of revenue and also receives annual grants from the Government. It levies taxes on holdings, rickshaws, carts, cycles, stalls, open spaces, markets, cinema houses besides receiving taxes on houses, land, water and sanitation.

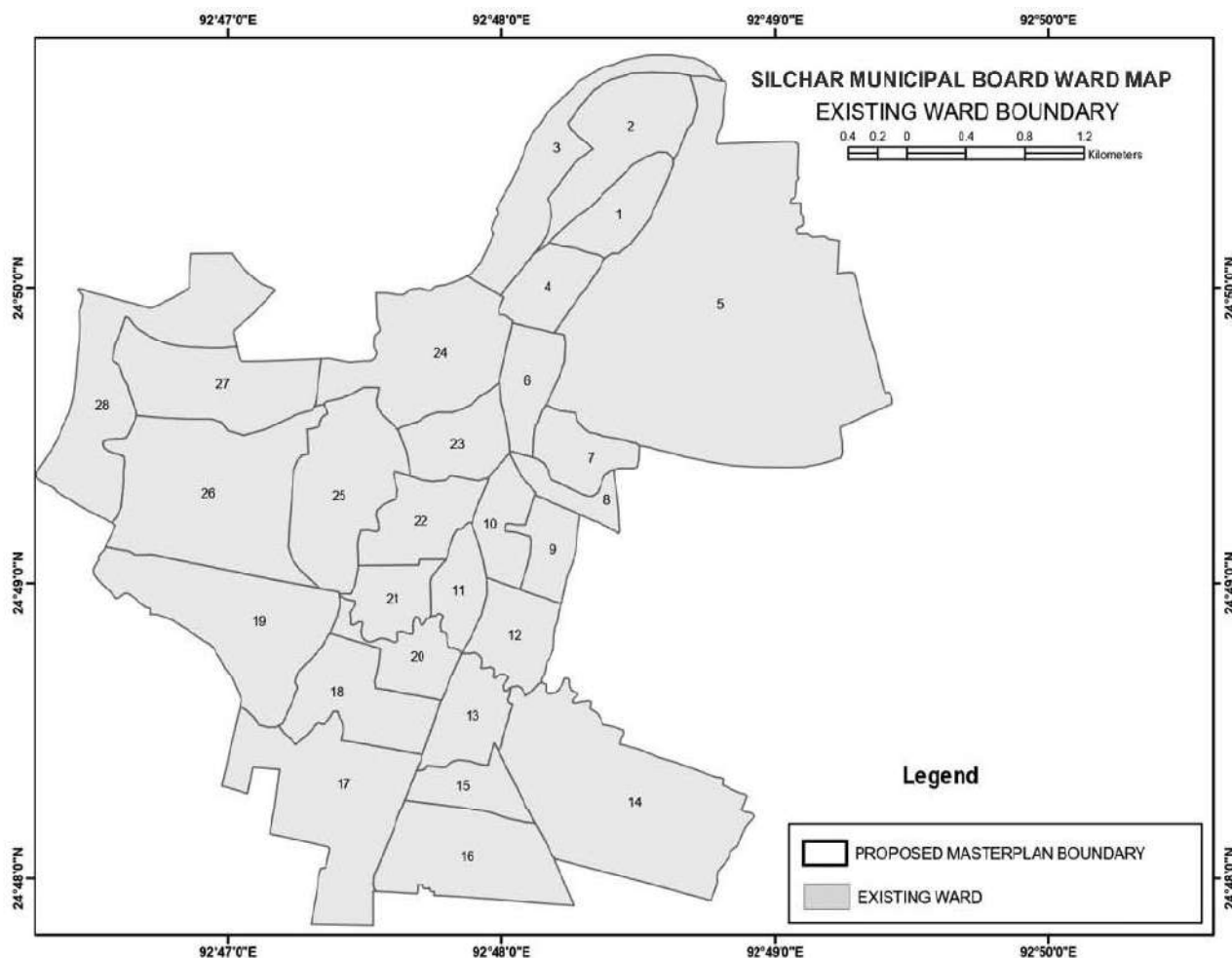


Figure 17 Existing ward maps

1.11 DEVELOPABLE AND NON-DEVELOPABLE AREA

A broad aspect of land which falls under Defence installations, government administration area, hazard prone zone, forests, reserve forest or if it falls under eco-sensitive zone, should be treated as non-developable zone. Silchar has bils, forest, rivers, etc. which is a part of its ecosystem. Some parts of forest /reserve forest areas are in/around the city. Such areas could be identified and addressed if they are developable or non-developable areas of the city.

Table 19 Non-developable Zones

Non-developable Zone	Eco-sensitive	Beels	Mohisa Beel, Malini Beel and Ramnagar Anua
		Rivers	Barak
	Defense land/installations		Airport Land
			Railway Land
	Administration area		Land under the state and central government of India.
	Hazard Prone Area		Shoulder of rivers, and water bodies.

Developable area which falls under the category of developable byelaws, should be easily accessible by best possible mode of transport. It should have potential to house the basic services/amenities required for the occupants.

1.12 NEED FOR THE MASTER PLAN

A town/city and its surrounding areas are composed of land, buildings, people, utilities and transportation and communication facilities, drainage, markets etc. A Master Plan is a statutory instrument for controlling, directing and promoting the sound and rational development or redevelopment of an urban area and its adjoin areas within a view to achieving maximum economic, social and aesthetic benefits. The Master Plan generally indicates the manner in which the use of land in the respective area is to be regulated and it also indicates the manner in which the development of land therein is to be carried out. A Master Plan is a scheme of arrangement of these, i.e. the Master Plan consists of co-ordinated plans of major streets, transportation facilities, parks, recreation facilities, educational facilities, health facilities, tourist facilities, commercial and industrial areas – all arranged in such a way which would function most efficiently and economically and also enhance the aesthetic beauty not only of the urban area but also the village area at the same time. It is also an important tool for guiding and regulating the future growth of the town.

The Master Plan provides vision, direction and a defined achievable future for the Town by establishing specific goals and strategies for land use; community appearance and design; housing and neighbourhoods; jobs and economic vitality; transportation; public services and facilities; natural resource protection; open space and recreation; history, arts and culture; and regional coordination. It is also the basis for taking day to day decisions on land use conversion that follow an optimistic and hopeful long-term vision.

The preparation of Master Plan is a continuous process and needs revision/modification from time to time to incorporate the unforeseen development, technical innovations etc. The first Master Plan of Silchar was prepared long back in the year 1977 and revised it in the year 2005 and will be applicable upto the year 2016. As such it is necessary to revise the Silchar Master Plan by adopting new GIS based technology under the scheme of AMRUT (Atal Mission for Rejuvenation and Urban Transformation) to provide better guidelines for the balanced development of the existing area as well as incorporated new areas in the Master Plan.



2 DEMOGRAPHY

2.1 INTRODUCTION

Demography is the study of human population such as size, growth, density, distribution and vital statistics. It helps to understand population dynamics by investigating three main demographic processes in Silchar.

2.2 POPULATION CHARACTERISTICS

Demography contributes in understanding changes in populations, including how people inhabited Silchar and growth taking place. It is essential that a good understanding of a population dynamics provide the basis for decision-making, policy development and planning. Social and economic development processes and outcomes are depended upon the detailed study of population characteristic of any planning area.



Table 20 Existing population of Masterplan Area 2011

Sr.No.	Master Plan Area	Population (2011)	Percent
1	Silchar Municipal Board (28 Wards)	1,72,830	36.64
2	2 OutGrowths (Ward 29 & 30)	6,035	1.28
3	10 Census Towns	75,666	16.04
4	85 Rural Villages	2,17,178	46.04
TOTAL Population		4,71,709	100

Area wise Population (Census 2011)

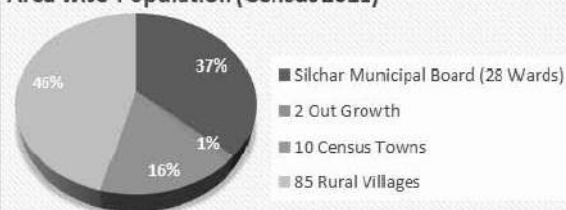


Figure 18 Population distribution of Silchar MPA, 2011

The total existing population of Silchar Planning Area is 4,71,709 out of which population of MB Area is 1,72,830 which is about 36.64% of the total population, 10 Census Towns contribute to 75,66 of about 16.04 % and the Rural area contain a population of 2,17,178 which is about 46.04 % of the total planning area population.

2.3 POPULATION GROWTH RATE

Table 21 Population Increase and Decadal Growth Rate

Years	1941	1951	1961	1971	1981	1991	2001	2011
Total Population	16601	34059	41062	52596	No Census held for Assam	115483	156948	178865
Decadal Growth Rate	27.03%	105.16%	20.56%	28.09%		119.57%	35.91%	13.96%

(Source: Census of India)

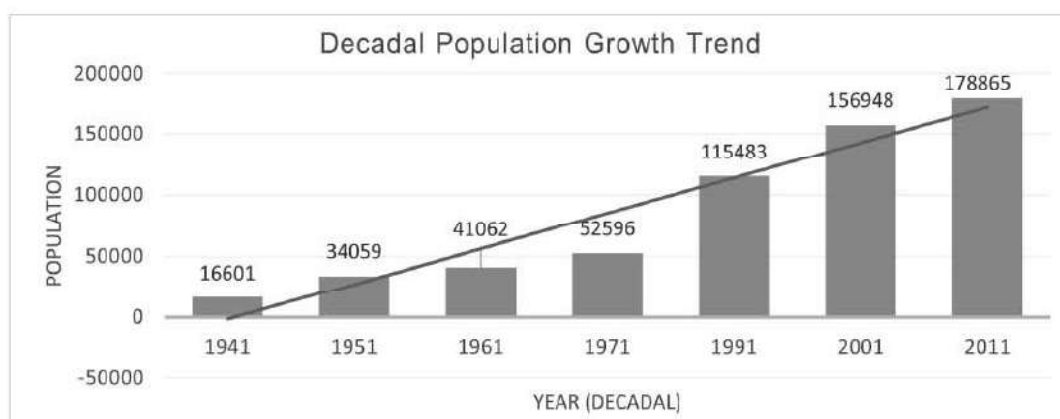


Figure 19 Population growth trend of last six decades

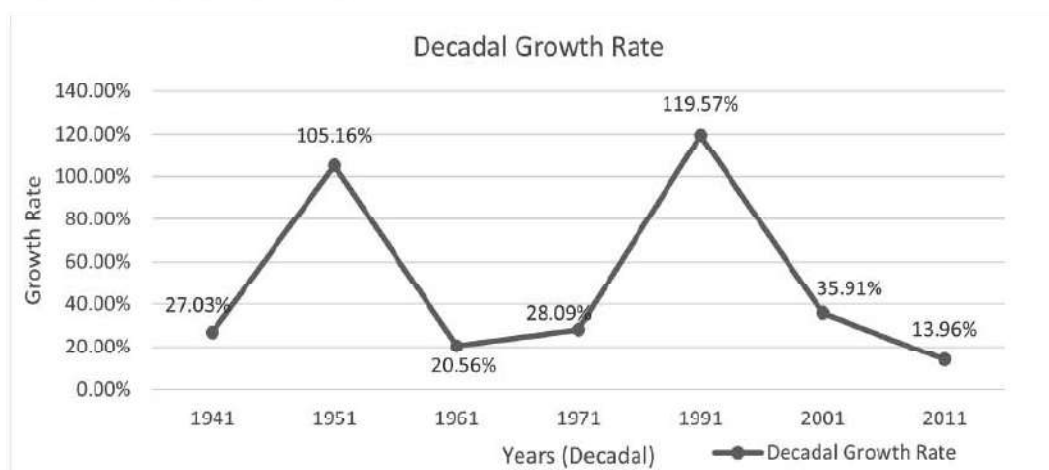


Figure 20 Population growth rate of last six decades

The Table 20 presents the numbers of population of Silchar Municipal Board area & shows the population growth trend of Silchar planning area in the past six decades in corresponding Municipality. The table clearly reveals that the Silchar MB area witnessed a high growth rate of almost 105.16 percent in the period 1941-51. During the period 1951-61 Silchar Municipality area recorded a decadal growth rate of 20.56%. However, the Census population count was not carried out in Assam in year 1981 for the Decade 1971-81, the growth rate was considered as 119.57% of two decades for 1971-91 thereafter sudden low growth scenario was observed throughout the Silchar Municipality region for year 2001. After this drop-in growth rate, the Silchar MB area observed further drop in 2001-11 period with a moderate increase in population up to 178865 with decadal growth rate of 13.96%.

This is attributed to the fact that Silchar is attracting a lot of population in the working sector due to top priority given by the Administration along with improvements in social security in the systems.

2.4 POPULATION DISTRIBUTION OF SILCHAR MB AREA

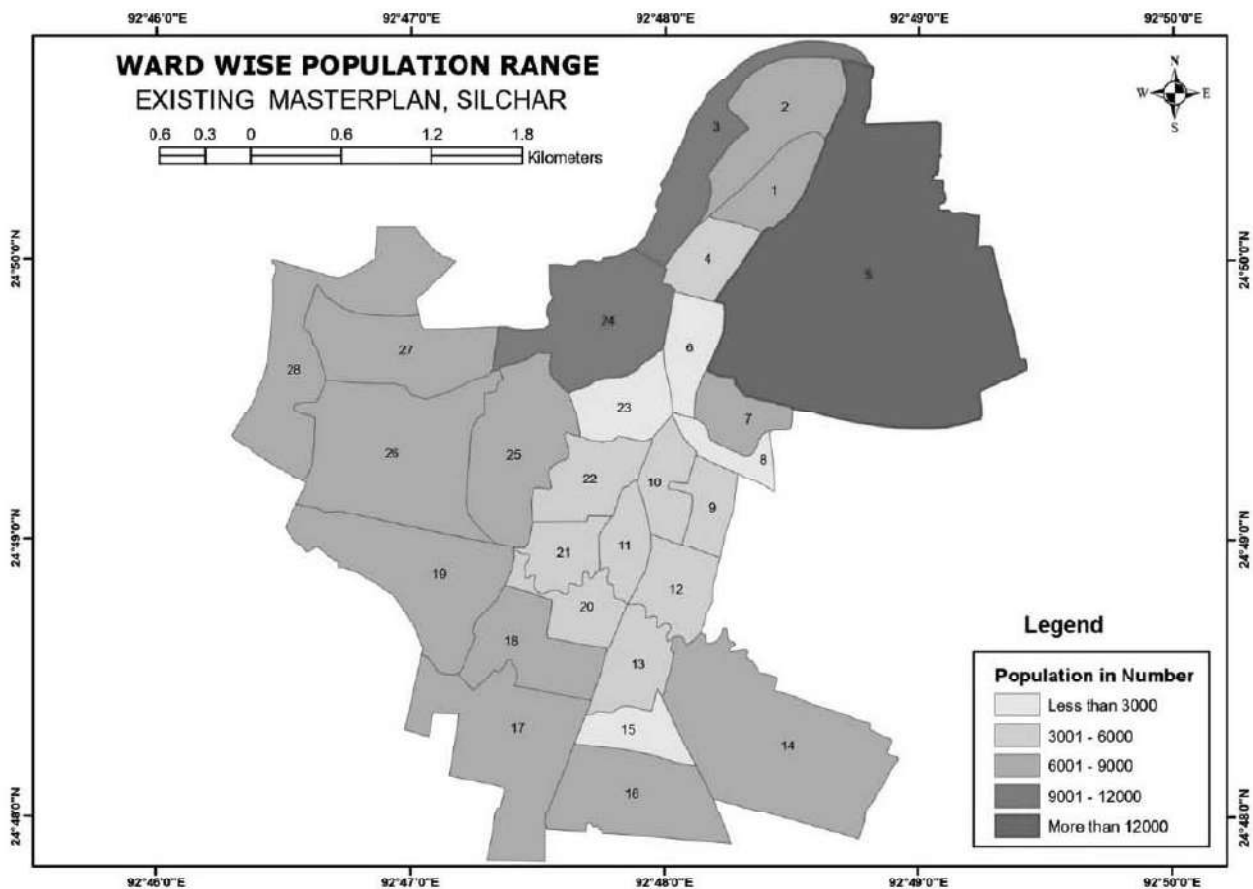


Figure 21 Ward wise Population distribution of Silchar MB area

Table 22 Ward wise Population for Silchar MB area

Ward No.	Population			Ward No.	Population		
	Male	Female	Total		Male	Female	Total
1	3100	2957	6057	15	1301	1290	2591
2	3559	3670	7229	16	3101	3155	6256
3	5435	5498	10933	17	3410	3368	6778
4	2019	2065	4084	18	3617	3680	7297
5	9255	9238	18493	19	3673	3595	7268
6	943	969	1912	20	2233	2233	4466
7	3566	3300	6866	21	1860	1973	3833
8	957	846	1803	22	2364	2549	4913
9	2282	2115	4397	23	1451	1251	2702
10	1938	1989	3927	24	4803	4705	9508
11	1745	1730	3475	25	3738	3568	7306
12	2665	2616	5281	26	3918	4051	7969
13	2222	2240	4462	27	3881	3827	7708
14	4198	3977	8175	28	3650	3491	7141
TOTAL					86884	85946	172830

(Source: Census of India, 2011)

2.5 COMPARATIVE GROWTH RATE OF MPA WITH STATE AND DISTRICT

Table 23 Comparison of Growth Rate

Particular	Growth rate %	
	2001	2011
Assam	18.92	17.62
Silchar district	18.89	20.19
Silchar Master Plan Area	28.13	15.48

(Source: Census of India, 2011)

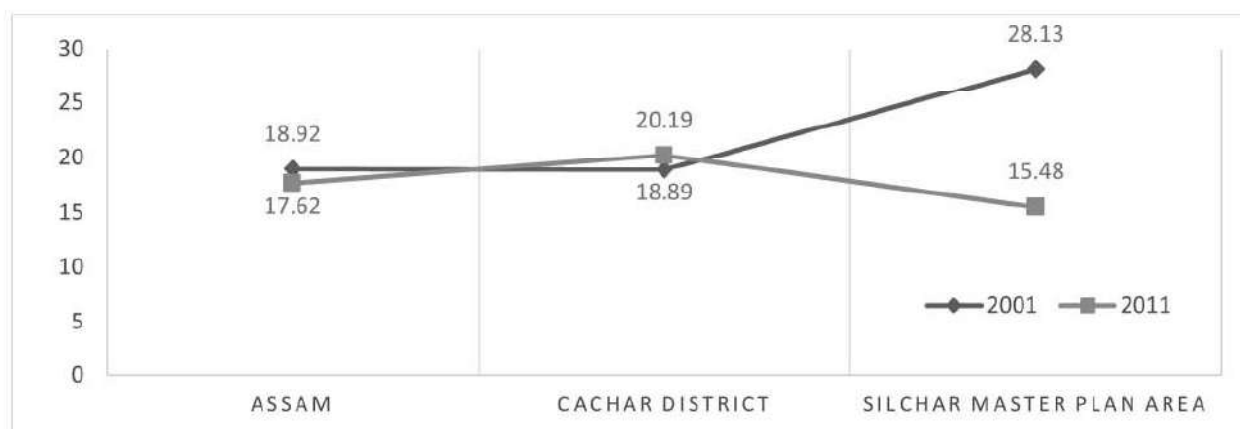


Figure 22 Comparative Growth rate of Silchar MPA

2.6 DECADAL GROWTH RATE OF MASTER PLAN AREA

Table 24 Decadal Growth Rate of Master Plan area

Decadal year	Population	Growth Rate
1991	2,86,537	-
2001	3,98,688	28.13
2011	4,71,709	15.48

(Source: Census of India 1991, 2001, 2011)

2.7 LITERACY RATE:

Table 25 Literacy rate in Silchar GIS Based Master Plan area

Sr. No.	Description	Population	Total Literate	Male Literate	Female Literate	% of Total Literates	% of Male literate	% of Female literate
1	Silchar MB(28 Wards)	172830	142294	73113	69181	82.33	84.15	80.49
2	2 Out Growths	6035	4091	2212	1879	67.79	71.89	63.52
3	10 Census Towns	75666	57139	30308	26831	75.51	78.96	71.97
4	85 Rural Villages	217178	150069	82202	67867	69.10	73.65	64.29
Total for GIS based Silchar Master Plan		471709	353593	187835	165758	74.96%	78.28%	71.53%

(Source: Census of India, 2011)

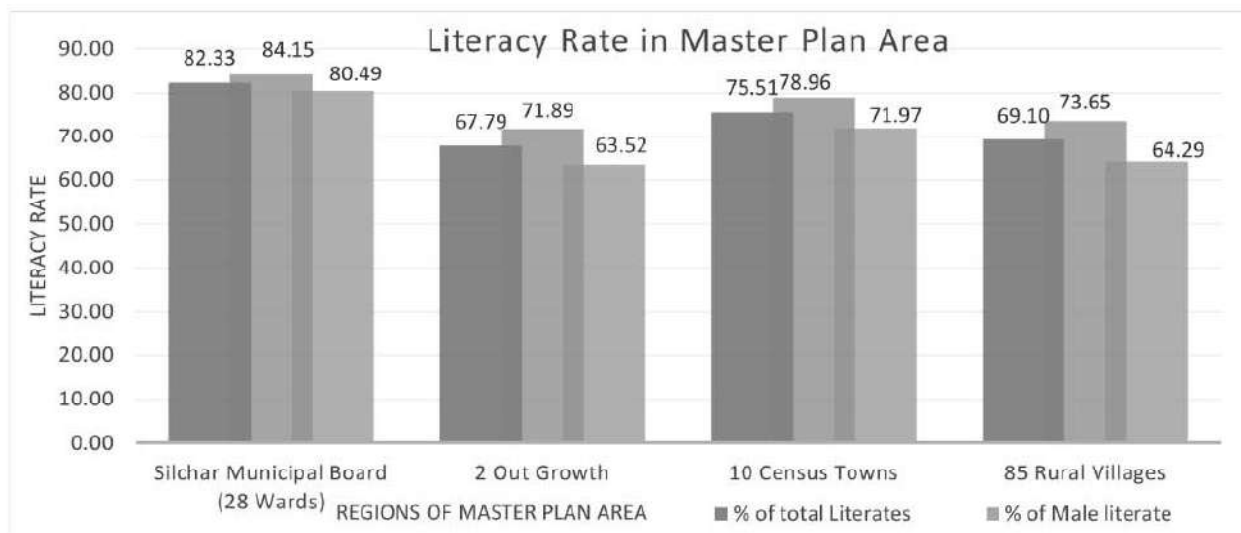


Figure 23 Total and male Female Literacy rate of Silchar Master Plan area

The literacy rate of Silchar Master Plan area is 74.96% in which Male literacy rate is 78.28% and female literacy rate is 71.53%

Table 26 Regional Comparison of Literacy rate

Region	%
Assam	72.19%
Cachar District	79.34%
Silchar Master Plan Area	74.96%

2.8 SEX RATIO:

Sex ratio is a valuable source for finding the population of women from the total population and what is the ratio of women to that of men in a particular area. In the Census 2011, it was revealed that the population ratio in India for 2011 is 940 females per 1000 of males. The Sex Ratio of 2011 shows an upward trend from the census 2001 data. Census 2001 revealed that there were 933 females to that of 1000 males. India has seen a decrease in the sex ratio till 2001, but after that there has been a slight increase in the sex ratio. The sex ratio in Cachar District is higher than the national, state sex ratio. The sex ratio in Silchar MB area is 989 whereas 966 of Silchar GIS based Master Plan area.

Table 27 Sex ratio of India

Sl. No.	Country	year	2001	2011
1	India	Sex Ratio	933	940

(Source: Census of India 2001 & 2011)

Table 28 Regional Comparison of Sex ratio

Region	Sex ratio
India	940
Assam	958
Cachar District.	959
Silchar City	989

(Source: Census of India 2011)

Table 29 Sex ratio of GIS based Master Plan area

Sr.No.	Description	Population	Sex Ratio
1	Silchar Municipal Board (28 Wards)	172830	989
2	2 Out Growths	6035	961
3	10 Census Towns	75666	971
4	85 Rural Villages	217178	946
Total for New GIS based Silchar Master Plan		471709	966

(Source: Census of India, 2011 and Consultant Compilation)

2.9 POPULATION DENSITY:

The Silchar Master Plan area comprises of total area of 174 sq.km with a total population of 4.7 Lakh.

The table 30 indicates that the overall population density of the Silchar Master Plan area is 2696 ppu (Persons Per Unit) in 2011. Here, 1 sq.km. of area is considered as single Unit for population density. The highest density is in Municipal Board area which is around 10973 ppu and minimum density is in outgrowth area which is around 590 ppu. It is observed from the table that the average density of Silchar Master Plan area as of 2011 is 2696 persons per unit which is more than the villages' average of 1739 persons per unit.

From the Silchar Ward wise population density data, it is found that Ward no.19 is the densest having 25062 persons per unit and Ward no. 06 is the least with 5311 person per unit.

Table 30 Population Density for different regions of Master Plan area

Sr. No.	Particulars	Area (sq.km)	Population	Population Density (PPH)
1	Silchar Municipal Board (28 Wards)	15.75	172830	10973
2	2 Out Growths	10.23	6035	590
3	10 Census Towns	24.04	75666	3148
4	85 Rural Villages	124.92	217178	1739
Total for New GIS base Silchar Master Plan		174.94	471709	2696

(Source: Census of India, 2011 and Consultant Compilation)

Table 31 Ward wise population density of Silchar MB

Ward No.	Population Density			Ward No.	Population Density		
	Area (sq.km)	Population	Density		Area (sq.km)	Population	Density
1	0.37	6057	16370	15	0.18	2591	14394
2	0.62	7229	11660	16	0.87	6256	7191
3	0.59	10933	18531	17	0.89	6778	7616
4	0.38	4084	10747	18	0.71	7297	10277
5	1.34	18493	13801	19	0.29	7268	25062
6	0.36	1912	5311	20	0.20	4466	22330
7	0.30	6866	22887	21	0.27	3833	14196
8	0.30	1803	6010	22	0.38	4913	12929
9	0.23	4397	19117	23	0.38	2702	7111
10	0.28	3927	14025	24	0.89	9508	10683
11	0.29	3475	11983	25	0.88	7306	8302
12	0.30	5281	17603	26	1.50	7969	5313
13	0.37	4462	12059	27	0.68	7708	11335
14	0.93	8175	8790	28	0.90	7141	7934

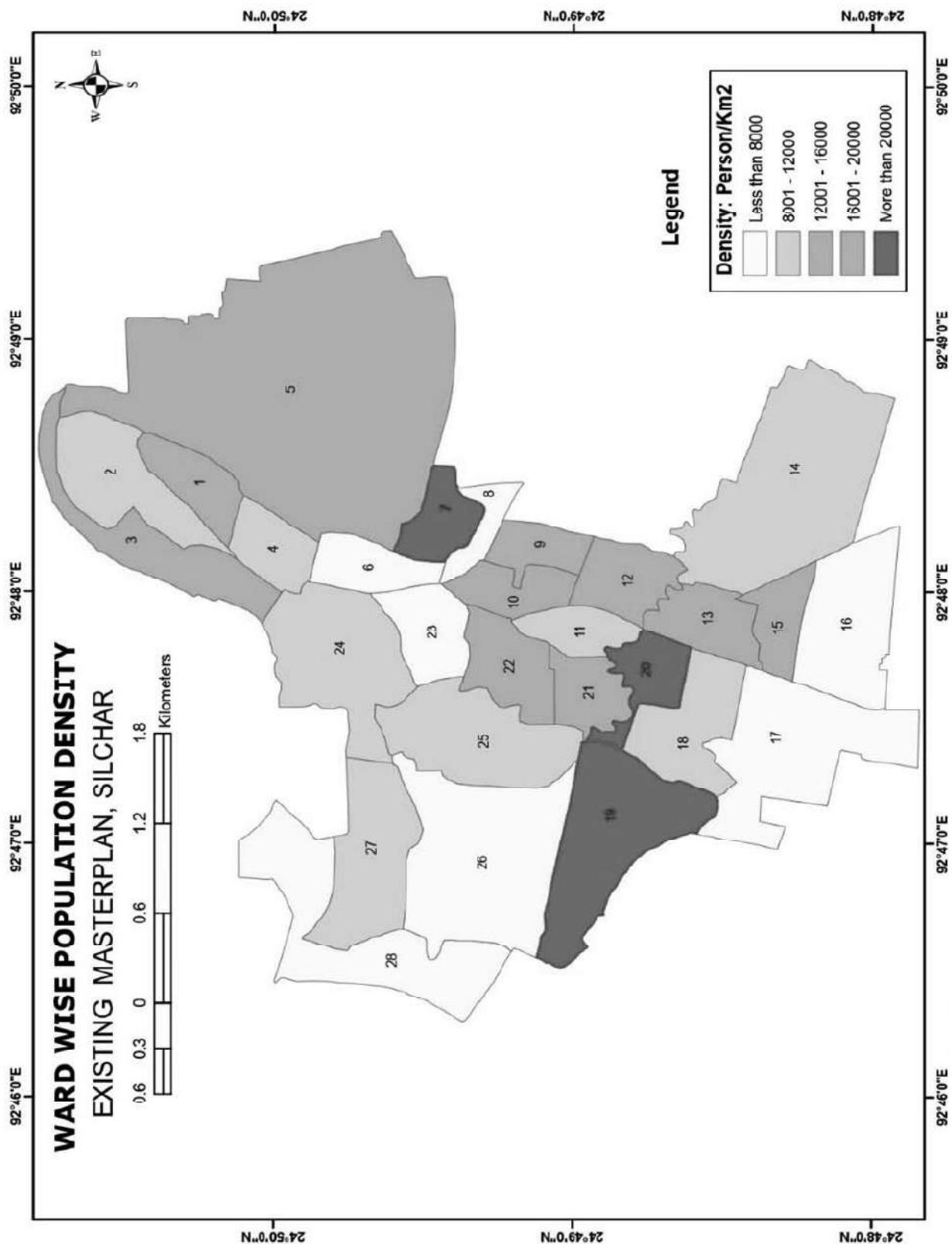


Figure 24: Population density Ward wise

2.10 POPULATION PROJECTION:

Population projection is a forecasting tool that helps to estimate the changes in population size and demographic structure. It is mandatory for Government policy makers and planners to determine the future demand for basic human needs such as food, water, education, health, energy and other services and to forecast future demographic characteristics.

The main objective is to provide or undertake activities aimed at achieving population stabilization, sustainable and environmental protection by the year 2045.

Population projection is a scientific/mathematical attempt to peep into the future population scenario, conditioned by making certain assumptions using data to the past available at the point of time. Assumptions used and their probability of adhering in future forms a critical input in this mathematical effort. Predicting the future course of human fertility and mortality is not easy, especially when looking beyond much further in time. Medical and health intervention strategies, food product and its equitable availability, climatic variability, socio-cultural setting, economic condition and a host of other factors influence population dynamics, making it a somewhat unpredictable exercise. Therefore, much caution must be exercised when either making or using the population projection and the context of various conditions imposed, should not be lost sight of on the basis of past behaviour and the likely future scenario assumed.

In Silchar Planning area different mathematical methods are used for the estimation of projected population for the horizon year are Arithmetic Progression Method, Geometric Progression Method, Incremental Increase Method and Average Arithmetic Incremental Increase method.

2.10.1 ARITHMETIC PROGRESSION METHOD

This method is suitable for large and old city with considerable development. If it is used for small, average or comparatively new cities, it will give lower population estimate than actual value. In this method, the average increase in population per decade is calculated from the past census reports. This increase is added to the present population to find out the population of the next decade. Thus, it is assumed that the population is increasing at constant rate.

- Hence, $dP/dt = C$ i.e., rate of change of population with respect to time is constant.
- Therefore, Population after n th decade will be $P_n = P + n.C$ (1)
- Where, P_n is the population after ' n ' decades and ' P ' is present population.

Table 32 Population projection for 2045 based on Arithmetic Progression Method

Method	1991	2001	2011	2021	2031	2041	2045
Arithmetic Progression Method	286537	398688	471709	564295	656881	749467	766898



2.10.2 INCREMENTAL INCREASE METHOD

This method is modification of arithmetical increase method and it is suitable for an average size town under normal condition where the growth rate is found to be in increasing order. While adopting this method the increase in increment is considered for calculating future population. The incremental increase is determined for each decade from the past population and the average value is added to the present population along with the average rate of increase.

- Hence, population after nth decade is $P_n = P + n.X + \{n(n+1)/2\}.Y$ (3)
- Where, P_n = Population after nth decade
- X = Average increase
- Y = Incremental increase

Table 33 Population projection for 2045 based on Incremental Increase Method

Method	1991	2001	2011	2021	2031	2041	2045
Incremental Increase Method	286537	398688	471709	603425	735141	866857	919543

(Source: Consultant Compilation)

2.10.3 GEOMETRIC PROGRESSION METHOD

In this method, the percentage increase in population from decade to decade is assumed to remain constant. Geometric mean increase is used to find out the future increment in population. Since this method gives higher values and hence should be applied for a new industrial town at the beginning of development for only few decades.

The population at the end of nth decade ' P_n ' can be estimated as:

- $P_n = P (1 + IG/100)^n$ (2)
- Where, IG = geometric mean (%)
- P = Present population
- n = no. of decades.

Table 34 Population projection for 2045 based on Geometric Progression method

Method	1991	2001	2011	2021	2031	2041	2045
Geometric Progression Method	286537	398688	471709	596690	754784	954766	1050243

(Source: Consultant Compilation)

2.10.4 AVERAGE ARITHMETIC INCREMENTAL INCREASE METHOD

This method is modification of arithmetical increase method and incremental increase method. It is suitable for an average size town under normal condition where the growth rate is found to be in moderately increasing order. While adopting this method the average of arithmetic and increase in increment is considered for calculating future population. The increase is determined for each decade from the past population considering results of both the method and average value is added to the present population.

Table 35 Population Projection based on Average Arithmetic Incremental increase method

Year	Total population for New GIS based Master Plan Area 2045	% of Increase
1991	286537	-
2001	398688	28.13
2011	471709	15.48
2021	559588	18.63
2031	657796	17.55
2041	751334	14.22
2045	806933	7.4 (in 4 years)

(Source: Consultant Compilation)

2.11 POPULATION PROJECTION FOR 2045

Population projection has been done using all the four methods. It is important to note that none of the above-mentioned methods is empirical, and they are based on probability. Out of them, Average Arithmetic Incremental Increase Method has been considered suitable for Silchar Master Planning Area. 1991, 2001 and 2011 figures are from the Census of India and 2021, 2031, 2041 & 2045 figures are estimated by the consultant.

Table 36 Population Projection for 2045

Year	1991	2001	2011	2021	2031	2041	2045
Population	286537	398688	471709	559588	657796	751334	806933

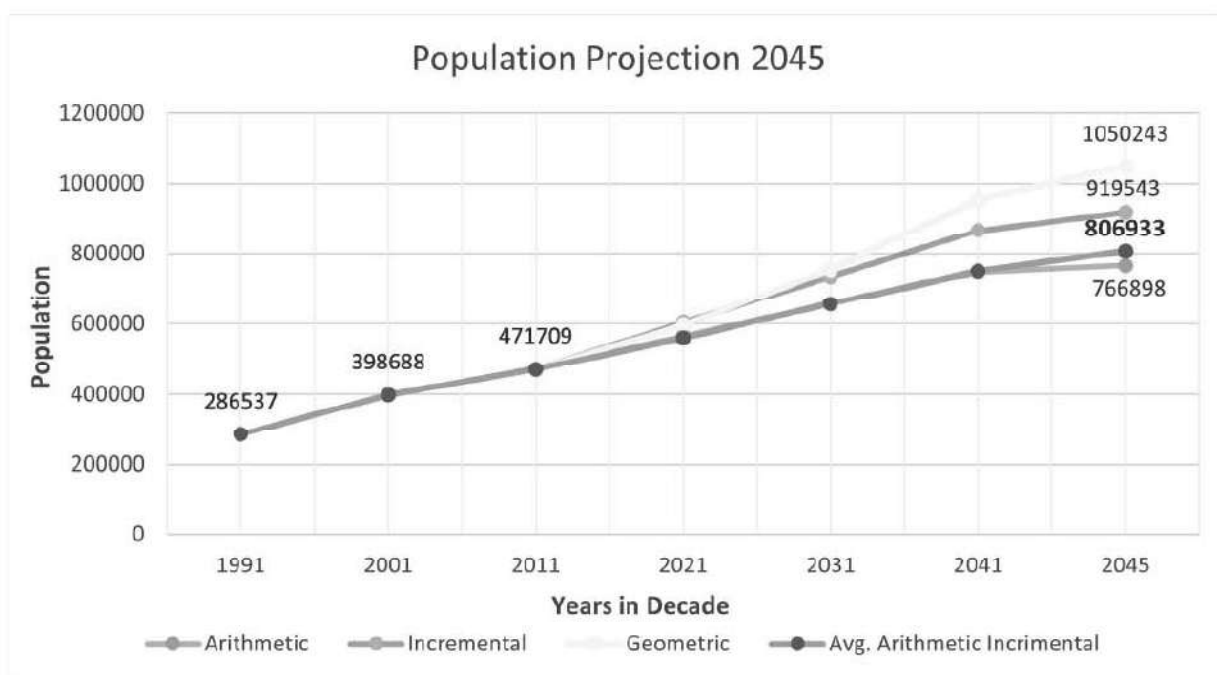


Figure 25 Population Projection for 2045

(Source: Consultant Compilation)

2.12 MIGRATION TREND

Migration into Assam is not a recent phenomenon; it is an age-old process since the British colonial period. However, it has occurred on a relatively larger scale in more recent decades particularly after 1971. Although migrants coming to Assam include people from the rest of India as well as from the neighbouring countries of Bangladesh, Nepal and Pakistan, it is the second group which has been a focus of attention during last several years. The high population pressure on land drive huge influx of farm labourer from Bangladesh to Assam. The economic potentiality of the region along with reluctant nature of indigenous people and absence of capital and entrepreneurship made such immigration a vital one.

Out of the total population in Assam about 3.91 percent and 2.65 percent are migrants during 1991 and 2001, of which about 1.51 per cent and 0.71 per cent constitute as the international migrants for the respective years particularly from the countries like Bangladesh, Nepal and Pakistan.

In terms of the International migration, Bangladesh contributes the majority of the migrants (84.85% and 86.14%) followed by Nepal (6.61% and 9.39%) and Pakistan (4.45% and 3.72%) respectively during 1991 and 2001.

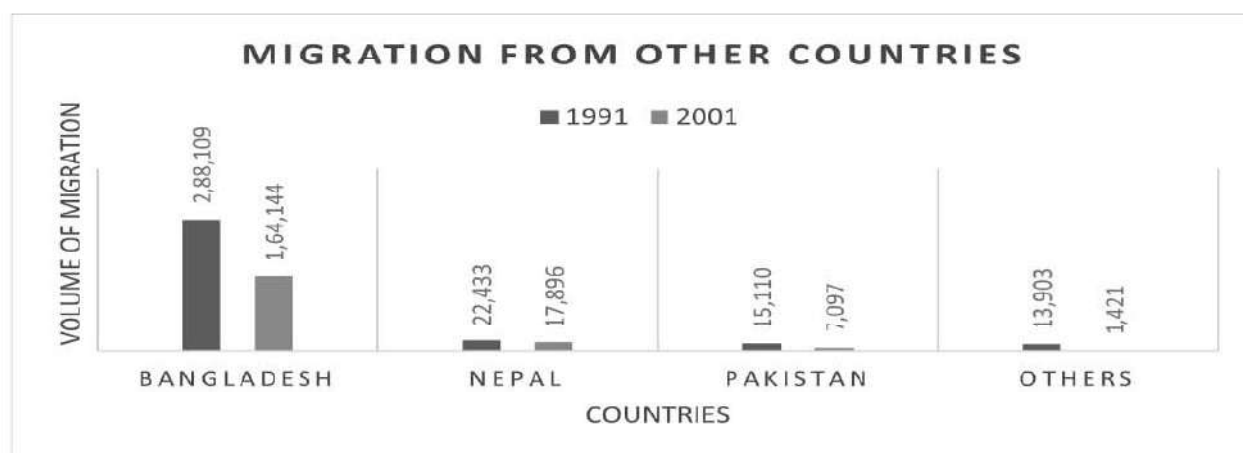


Figure 26 International Migration trend

Table 37 International Migration in Assam for 1991-2001

Volume of Migration (International) in Assam, 1991-2001				
Countries	1991		2001	
	No. of Migrants	Percentage of total migrants %	No. of Migrants	Percentage of total migrants %
Bangladesh	2,88,109	84.85	1,64,144	86.14
Nepal	22,433	6.61	17,896	9.39
Pakistan	15,110	4.45	7,097	3.72
Others	13,903	4.09	1,421	0.75
Assam	3,39,555	100	1,90,558	100

(Medical Visa to India from different countries, Source: Medical Value Travel Report, FICCI)

Along with the international migration the migrants from the other states of India also contributes significant volume of population growth in Assam. Out of the total migrants, the interstate migrant into Assam contributes about 2.39 per cent and 1.93 per cent during 1991 and 2001.

The existence of labour market, employment prospects in the destination area attracts the huge influx of migrants from the different districts of India, leading to structural disequilibrium and cultural mess-up in the region. The differential natures of migrant population from the different parts of the country along with the international migrants lead to the modification of the original population structure of the state of Assam. It also leads to the population redistribution among the states of the country, creating tension or pressure on the land of Assam and its indigenous population.

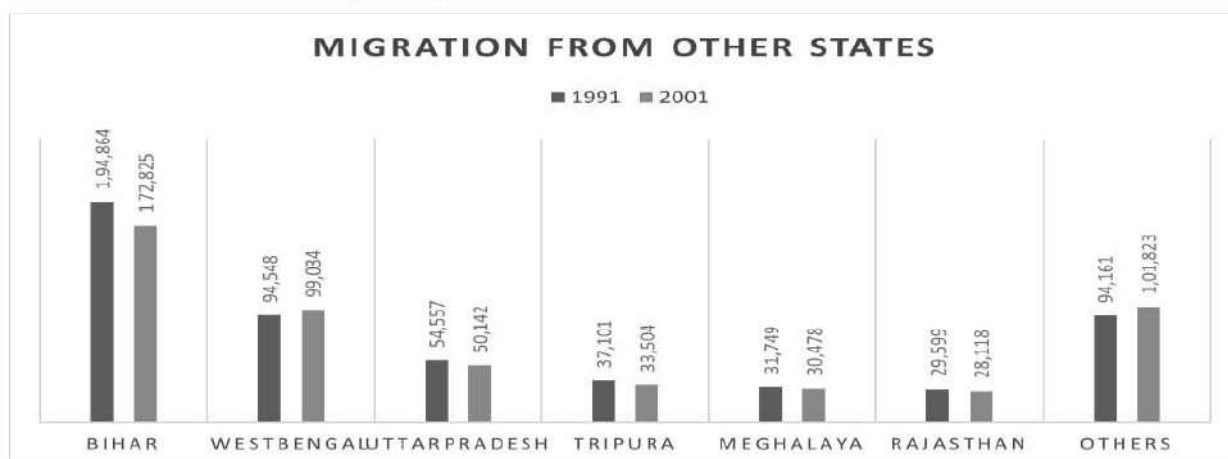


Figure 27 Inter State migration trend for year 1991-2001

Table 38 Interstate migration trend in Assam, 1991-2001

Volume of Migration (other states of India) in Assam, 1991-2001				
States	1991		2001	
	No. of Migrants	Percentage of total migrants	No. of Migrants	Percentage of total migrants
Bihar	1,94,864	36.31	1,72,825	33.5
West Bengal	94,548	17.62	99,034	19.19
Uttar Pradesh	54,557	10.17	50,142	9.72
Tripura	37,101	6.91	33,504	6.49
Meghalaya	31,749	5.92	30,478	5.91
Rajasthan	29,599	5.52	28,118	5.45
others	94,161	17.55	1,01,823	19.74
Assam	5,36,579	100	5,15,924	100

Table 39 Spatial distribution of migrants from outside India, 1991-2001

Sl. No	Districts	1991				2001			
		Total migrants	% of total migrants	% of male migrants	% of female migrants	Total migrants	% of total migrants	% of male migrants	% of female migrants
1	Silchar	6790	0.65	0.71	0.58	3522	0.3	0.33	0.26

(Source: India tourist statistic, 2015)

Table 40 Spatial distribution of migrants from other states of India, 1991- 2001

Sl. No	Districts	1991				2001			
		Total migrants	% of total migrants	% of male migrants	% of female migrants	Total migrants	% of total migrants	% of male migrants	% of female migrants
1	Silchar	1172056	3.93	3.3	2.51	34225	2.92	3.3	2.51

(Source: India tourist statistic, 2015)

Table 41 Volume of Internal migration in Assam, 1991-2001

Sl. No.	Districts	1991		2001	
		Total internal migrants	Percentage of Internal migrants	Total internal migrants	Percentage of Internal migrants
1	Silchar	70880	0.8	72014	0.19



The processes of human movement are always associated with number of reasons including social, cultural, political reasons, employment, business, education, marriage, family movement, etc. People move from one area to another for fulfilment of required and better facilities of amenities. The areas appalling poverty, unemployment, low and uncertain wages, uneconomic land holdings, poor facilities for education, health, recreation etc. move forward the people to migrate to another place where better facility prevails. Thus, it is the push and pull factor acts as ingredients of population migration. Among all the reasons of migration, marriage (36.48 per cent) is considered as the single largest reason for migration. This reason of migration is more pronounced among the females (58.79 per cent) than the male (1.59 per cent) counterparts as female are forced to migrate under the social custom of marriage system. While after marriage, family movement (15.08 per cent) is also another prominent reason for migration followed by employment, (5.55 per cent) trade and commerce (2.83 per cent), movement after birth (1.03 per cent) and education (0.69 per cent).

Most of the family movement form of migration is governed by religious and political reasons of migration process. The shortage of labour force in the primary and secondary sector of economic activity generates the employment opportunity which attracts the large volume of migrants into Assam both in the form of interstate and international migrants. Similarly, the lack of skill of trade and commerce among the people of Assam attracts the large volume of traders to the region.

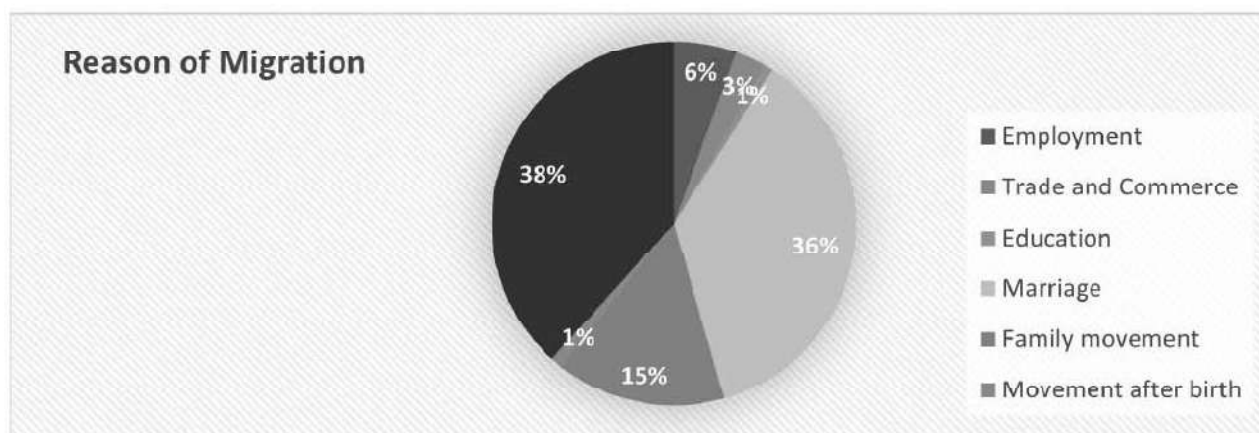


Figure 28 Reason of migration, Census 2011



3. ECONOMIC BASE AND EMPLOYMENT

In the 1950s per capita income in Assam was little higher than in India. In 2000-01, it was INR 10,198 at current prices, almost 40% lower than that in India. According to the recent estimates, per capita income of Assam has reached INR 6756(1993-94 constant prices) in 2004-05 which is still much lower than India's.

According to recent analysis, Assam economy is the signs of improvement. In 2001-02, the economy grew (at 1993-94 constant prices) at 4.5% to fall to 3.4% in the next financial year. During 2003-04 and 2004-05, the economy grew (at 1993-94 constant prices) more satisfactorily at 5.5% and 5.3% respectively. The advanced estimates placed the growth rate for 2005-06 at above 6% Assam's GDP in 2004 is estimated at \$13 billion in current prices. The average annual growth rate of agriculture, which was only 2.6% per annum over 1980s, has unfortunately fallen to 1.6% in the 1990s. Manufacturing sector has shown some improvement in the 1990s with a growth rate of 3.4% per annum than 2.4% in the 1980s. Since past 5 decades, tertiary sector has registered the highest growth rates than the other sectors, which even slowed down in the 1990s than 1980s.



3.1 SECTORS OF ECONOMY

The economy is categorized under the main three sectors as Primary, Secondary and Tertiary. If we talk about Silchar particularly the Primary sector comprises agriculture, horticulture and forestry, sericulture & fishing, mining and quarrying, animal husbandry and dairy as subsidiary industries. Manufacturing, household Industries and construction industry are considered in Secondary sector where as trade, tourism, hotels & restaurants, transport, storage & communication, banking, public administration, and informal sector are part of Tertiary sector.

Table 42 Sector wise economic distribution

Primary Sector	Agriculture, Horticulture and Forestry, Sericulture & Fishing, Mining and Quarrying, Animal Husbandry and Dairy
Secondary Sector	Manufacturing, Household Industries, Construction.
Tertiary Sector	Trade, Tourism, Hotels & Restaurants, Transport, Storage & Communication, Banking, Public Administration and Informal sector



Silchar, in the recent year have seen development of some small-scale industries. Coal, Tea and Lac consists of the main industry of the region. Since the time immemorial, many cottage industries have existed among the people of the area. Small Scale industry includes:

- Weaving Industry
- Eri silk Industry
- Cane and Bamboo Industry
- Metal Industry
- Sawmills Industry

Newly Grown up Industry in Silchar are as highlighted below:

- Agricultural Industries
- Rice and Flour Milling
- Chemical Industry
- Brick making Industry

3.2 PRIMARY

3.2.1 AGRICULTURE, HORTICULTURE AND FORESTRY

Agriculture contributes largely to the economy of Silchar. Majority of the people of the area are dependent upon agriculture. The tribal people of the area practice a distinctive feature of agriculture known as the Jhum Cultivation. During the autumn season the cultivation is normally done either as a single crop or as mixed crop along with ginger, Maize, chillies, turmeric and other vegetables. Some horticultural crops cultivation, such as orange, pineapple, banana and papaya occupy an important role in the agricultural economy of the area.

The climate, rainfall, and temperature, as well as soil condition, have a pronounced effect on the growth of natural vegetation of Silchar town. The laterite soil having high acidity does not allow luxuriant vegetation. However, the mixture of 61 humus contents and deposits of muddy clay by the riverbank in the low-lying pockets have increased the fertility of the soil.

The vegetation includes coconuts, betel nut, banana plants in abundance. Besides, mango, peepal, neem, simul, Kadam and other shady trees along with bushes and shrubs are also available in the town area. In terms of natural resources endowment, the economy is purely agrarian. Agriculture is the backbone of its economy providing livelihood to about 78% of the total population. Rice is the staple food of the inhabitants and paddy is the principal crop of the town. The production of banana is common to all households. All the varieties of banana are grown in plenty and sold to the market at a cheap rate compared to the market prices in the major towns. Banana plant is the one which is used from the roots to the leaves. Major agriculture crops include paddy, potato, jute and sugarcane, while cabbage, tomato, onion, brinjal, mango, litchi, lemon, pineapple, and jackfruit are the major horticulture crops.

The agro climatic conditions of Silchar are favorable for different agricultural activities such as development of the plantation crops like rubber, tea, coffee, cashew, coconut, Areca nut and also aromatic plant like patchouli. Forestry plays a significant role in the economy as a considerable section of the people depends for firewood and timber, bamboo, ekra reed, thatch, tokopat, cane etc. for building their dwelling houses. A number of forest base industries like saw-mills, furniture workshops, bamboo and cane industry etc. have also been set up. Besides, boulders, gravels, sands and other forest products also earn considerable revenue to the Government.

3.2.2 SERICULTURE AND FISHING

Sericulture is an old age cottage industry of the rural people. It is done during the agricultural off season as a subsidiary occupation. The popular and durable Endi and Muga are the products of this industry. After independence, the Department of Sericulture and weaving and The Central Silk Board of India came into operation and provided a fresh face-lift to this industry.

Fish is an integral part of the diet of the people of Assam as it gets a lot of rainfall. The local "Rohu" variety is in much higher demand than the other imported fish. Every small and big river, large areas of water bodies, swamps and bils in the town are having a unique potential for development of inland fisheries. There are a number of unemployed youths but many of them are opting for fisheries as a livelihood option. There has also been a lot of development in aquaculture technologies.

Sericulture is an age-old traditional cottage industry of the state and plays a pivotal role in the rural economy. The art of sericulture and rearing of cocoons for the manufacturing of various silk cloths were unknown to the Assamese since early time. The State government and the Central silk Board have taken various measures for the development of sericulture in Assam to increase the production of seed cocoons as well as the quality of yarn. Assam is famous for her mulberry and other kinds of silks known as Pat, Eri, and Muga. Muga is non-

mulberry silk. The Government is trying to provide a wider employment opportunity to the weavers under various schemes undertaken through its concerned department.

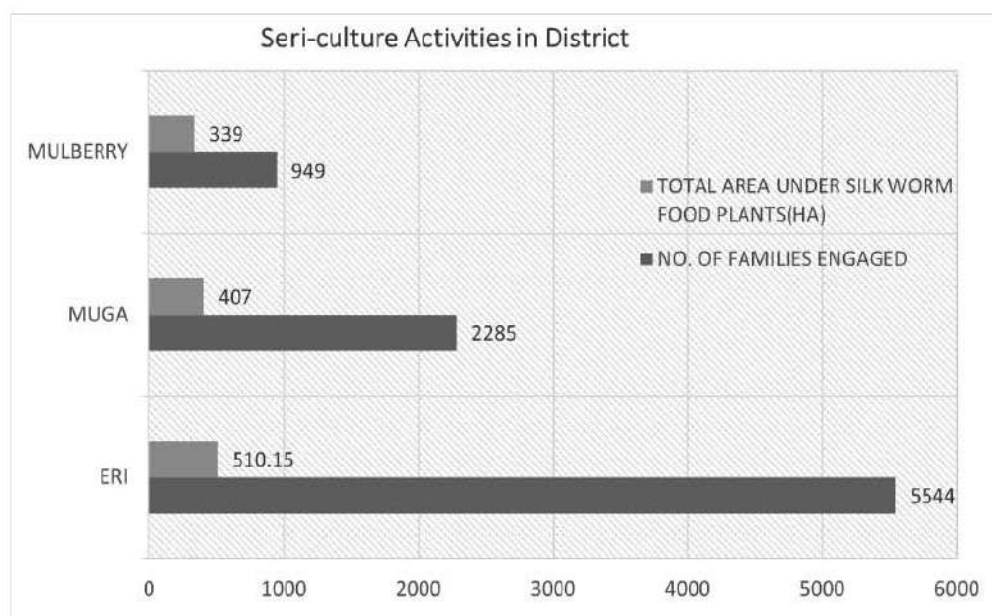


Figure 29 Seri-culture activities in district

(Source: Directorate of Economic and Statistics)

3.2.3 MINING AND QUARRYING

The district has no mineral deposit or mines. However, salt springs exist in hill ranges. Clay used for the manufacture of bricks and roof tiles are available in Silchar.

3.2.4 ANIMAL HUSBANDRY AND DAIRY

People in the town are predominantly non - vegetarian and prefer both eggs and meat of birds of local variety. The climatic condition of the district is suitable for poultry farming. Most of the poultry birds are reared in small units. However, the farmers have to depend on other districts/states for supply of chicks.

The people in rural areas have long tradition of maintaining cows & buffaloes for supply of milk and milk products. The production of milk per local animal is 1.5 litre/day. The low productivity of the dairy animals is apparently due to poor genetic character of the local cows. Considering the demand & supply, there is ample scope for development of this activity, particularly in rural areas adjacent to urban and semi-urban areas. Cattles, Buffaloes, Sheep, Goats, Pigs, Fowls and Ducks are the livestock and poultry.



3.3 SECONDARY

3.3.1 MANUFACTURING

The total number of EM-II registered Micro, Small and Medium Enterprises of Silchar town during 2013-14 was 22, having an employment of 120 out of which 84 were male and 36 female, with capital investment of approximately Rs.5,50,54,406. The number EM-II registered Micro, Small and Medium Enterprises of Silchar during 2013-14 (up to 12th November 2014) was 10, with an employment of 81 out of which number of males are 65 and female 16 and the amount of capital invested was approximately Rs. 1,17,79,638.

(Source: District Industries and Commerce Centre, Cachar.)

4.3.1.1 Medium scale

Silchar is practically dependent on agriculture and industry. Tea Industry, Assam Co-operative Jute Mill Ltd., Kampur Co-operative Sugar Mill, Katimari Weaving Project and Sack Craft paper project are the main medium scale industrial projects taken up in Co-operative and State sector. There is good scope for agro-based industries including sericulture. But there are identified weaknesses that includes - power shortage, seasonal floods, shortage of industrial labour, lack of practical entrepreneurial development/motivation, lack of practical exposure.

Table 43: Types of Industries in Assam and Silchar

Sr.No.	Type of Industry	Units	
		Assam	Silchar (district)
1	Manufacturing of Food products and Beverage	1559	105
2	Manufacturing of Textiles	60	9
3	Manufacturing of Paper and Paper Products	68	1
4	Manufacturing of Rubber, Plastic Products	177	3
5	Manufacturing of Non-Metallic mineral Products	8416	143
6	Manufacturing of fabricated Metal Products and Parts (except Machinery and equipment)	109	3
7	Manufacturing of Electrical Machinery and Apparatus	61	2
8	Supporting and auxiliary Transport activities, activities of travel agencies (including storage and warehousing)	31	2

(Source: Directorate of Economic and Statistics)

3.3.2 HOUSEHOLD INDUSTRIES

4.3.2.1 Handloom

The handloom Industry is the most important cottage industry with a glorious past. It is closely associated with art and culture of the society. Weaving is a traditional activity of the state. Silchar presents a unique picture in the Handloom and Textile sector. Weaving of fabrics is a way of livelihood of large number of rural families and artisans. But it is only a part time activity here and not the primary bread earning activity. As a result, Handloom has not been able to develop to its fullest potential.



4.3.2.2 Handicrafts

Handicraft is another important cottage and household industry sector, which is largely open for providing self-employment opportunities in the rural areas. The products are Kuhila craft, Pottery & Terracotta, Jute, Cane & Bamboo products, Rantholi Jewellery. Resources in nearby areas may also attract investment in this district because of better terrain and railway/road infrastructure. Assamese ornaments are one of the most important parts of Assamese culture. It is generally made by pure gold. The art has been in practice from the past when the Ahom Kings used to rule.

4.3.2.3 Construction

Every rural house has Choraghar (Reception house), Borghar (living house), Bhoralghar (granary), Gohainghar (worship house), Gohalighar (cow shed), Pakghar (cookshed) etc. The houses are made of thatch, bamboo, reed, and mud. Wooden posts are also used. In the present day however house on modern line using C.I. sheet, brick and cement are quite common both in rural and urban areas.



3.4 TERTIARY

3.4.1 TRADE AND COMMERCE

In Silchar, un-organized retail plays an important role in the Economy of Silchar. Starting and operating a business includes a possibility of success as well as failure. Small size, poor management, lack of planning, improper financing, poor service, inferior quality of goods, lack of variety, untrained staff, are the main cause of failure of traditional retail in Silchar. Proximity, location of shop is a major comparative advantage of unorganized retail. Unorganized retail has significant competitive strength that includes credit sales, amenability to bargaining, ability to sell loose items, convenient timings, familiar relation and home delivery. Nonetheless, the unorganized sector still dominates the retail business in Silchar.

Silchar retail is dominated by a large number of small retailers consisting of kirana shops, chemists, footwear shops, apparel shops, paan and beedi shops, hand cart hawkers, pavement vendors etc. which together make up so called "un-organized retail or traditional retail". The last 4-5 years have witnessed the entry of organized retailers in Silchar in form of the entry of Vishal Megamart in 2007 and Big Bazaar in 2012.

In the case of unorganized retail-selling expired products is the major problem. Secondly adulteration, lack knowledge, poor reply to poor cooperation felt by the consumers from the retailers were major problems. Consumers face followed by- unavailability of variety of goods, branded products, no home delivery, poor after sales service, inconvenient parking facility, and improper space management, lack of quality assortment, inconvenient location and poor in store ambience.

In Silchar there is a larger concentration of unorganized retail market. More than 99 % retailers function in less than 300 square feet of shopping space. Purchasing power of Silcharian is growing and branded merchandise is in categories like Apparels, Cosmetics, Shoes, watches, Beverages, Food and even jewelry, are slowly becoming lifestyles products. Now days consumers are time-starved, value-driven, frustrated by inconsistent shopping experiences. Still organized retail is covering space very fast but it fails in providing consumers their perceived value. However, the consumers of Silchar are not yet satisfied quite well.

3.4.1.1 Market Places

Silchar local markets offers some unique things but at a much more reasonable rate. The Sadarghat area of Silchar is famous cane furniture like sofa, chairs, tables, trays, shelves, mirror frames, flower vases etc. The furniture found here are very good and unique. The Tula patty area in Silchar also has a good number of shop which sells Manipuri handloom like Salwar Kameez material, sarees, dupattas (stoll), pillow covers, bedcovers etc. The shops in these area are good and worth visiting. Although the items are very colorful, everything found there are worth buying. Nagaland handlooms like housecoats, woolen shawls, waistcoats, are found in the Tulapatty area of Silchar.

The local bazaars in Silchar are, Srikona Bara Bazaar, Kanakpur Bazaar, Foreign Market, College Road Market, Chincoorie Trinali Market, Arunachal Market, Fatak Bazar, Sadarghat Bazar, Tarapur bazaar, National highway Bazar and Rangirkhari Bazar.

These markets have been suffering for years. An overwhelming stench greets a visitor as soon as he or she steps into the market and it is difficult to ignore the shabby look all around. Everybody from the fish seller to the vegetable vendor and the beetle-chewing meat shop owner seems to be struggling for space. Nearly two lakh residents of the town buy vegetables and other food items from the market. According to a data compiled by the Silchar Retail Vegetable Trader's Society, on any given day a wholesaler purchases about 150 tons of seasonal vegetables from the market. The 300-odd vendors are anything but happy at the proposed makeover of the market as it means selling their wares under the open sky till such time construction is completed. After a devastating fire gutted the market on a May afternoon in 1980, the then chairman of the

Silchar Municipal Board Sontosh Mohan Dev, approached Dispur for funds to build a concrete stall. However, the amount sanctioned fell much short of every body's expectation. Not many stalls could be constructed and only the cloth merchants benefited.

(Source: *Silchar Market Plan raises a Stink-the Telegraph, 2012*)

3.4.1.2 Categories of Unorganized Trading

- Fruit & vegetable sellers Sells fruits and vegetables.
- Food stores - Result of bakery products. Also sells dairy and processed food and beverages.
- Non-Vegetable Store - Sells chicken and mutton.
- Kirana I - Sells bakery products, dairy and processed food, home and personal care and beverages.
- Kirana II - Sells categories available at a kirana I store plus cereals, pulses, spices and edible oils.
- Apparel -
- Footwear -
- Customer durables & IT- Sells electronics, durables & IT products.
- Furnishing - Sells home lines & upholstery.
- Hardware - Sells sanitary ware, door fitting, and tiles.
- General mechanize - Includes lighting, stationery, toys, gifts & crockery.

3.4.1.3 Impact of Organised Sector on other Sectors

Impact on Consumers

1. Consumer spending has increased with the entry of organized retail.
2. Consumers are provided with wider variety under one roof at competitive prices.
3. All income groups have gained through organized retail purchases but the lower income consumers saved more.

Impact on Unorganized Sector

The unorganized sector is affected in the following manner: -

1. Unorganized sector has not lost due to entry of organized sector. It has rather gained in terms of business as the overall retail economy is growing.
2. It has also gained in terms of its quality enhancement due to competition given by organized sector.
3. Some businesses have closed. The closure rate is 4.2% p.a. which is much lower than international rate of closure of small business, out of which only 1.7% closure is due to organized sector.
4. Small retailers have adopted the policy of extending more credit to customers to attract and retain customers.
5. They have become competitive by adopting improved business practices & technology up gradation.

3.4.1.4 Challenges before Organized Retail Sector

- Talent shortage & lack of trained manpower.
- Supply chains are not yet so efficient and the kind of quality that customers demand is not being provided yet.
- There are too many intermediaries. These long intermediary chains are in turn driving up their costs.
- A plethora of clearances are required for setting up retail outlet. It limits the expansion of retail outlets at a faster pace.
- Inadequate infrastructure, such as roads, electricity, cord chains and posts, hampers going for a pan-India network of supplies. Due to this, retailers have to resort to multiple vendors for their requirements which is raising their costs and prices.
- Organized sector does not have industry status. It is further making it difficult for the players to raise funds for their expansion plans.
- Government restrictions on FDI limit are resulting in limited exposure to international best practices.

3.4.2 TOURISM SECTOR

Tourism is a social and economic phenomenon that heavily influences contemporary society (Crick, 1996). Nowadays, tourism industry can be considered as business behaviour since it might influence the development of a local economic. The secret for a successful destination is to approach the right target market and to provide an appropriate combination of local tourism products and services.

Tourism is now-a-days considered as an important industry which has vast scope for the generation of income and employment. It is one of the world's fastest growing industries, a major source of foreign exchange earner of a nation and a measure for resolving interstate and inter community conflict.

3.4.2.1 Indian State's/UT's wise Tourists Inflow

Assam Stands 22nd in the Tourism sector when compared with other states and UT's. But in case of North Eastern States, Assam stands 1st in the Tourism Sector.

Table 44 North Eastern States Wise Domestic Visitor Arrival in Assam (2005 - 2016)

Sl. No.	State/UT	Domestic	Foreign
1	Uttar Pradesh	1161297774	3130437
2	Tamil Nadu	338635730	4703343
3	Andhra Pradesh	137377204	289809
4	Karnataka	124813271	549127
5	Madhya Pradesh	114233039	392280
6	Maharashtra	109959868	4539483
7	Telangana	94838573	146324
8	West Bengal	72326850	1509100
9	Gujarat	39270686	314363
10	Rajasthan	38341344	1494520
11	Jharkhand	33234408	168614
12	Punjab	32249844	451052
13	Uttarakhand	30001151	111494
14	Bihar	28272623	967134
15	Delhi	26859442	2449626

16	Himachal Pradesh	17561398	429439
17	Chhattisgarh	17431156	7807
18	Kerala	12819054	1007949
19	Odisha	12314442	71666
20	J & K	9279798	60888
21	Haryana	7389246	317205
22	Assam	5326222	18703
23	Goa	5203242	611082
24	Puducherry	1347741	111795
25	Chandigarh	1128173	30544
26	Daman & Diu	808556	5764
27	Meghalaya	791026	8252
28	Sikkim	726183	52246
29	Dadra & Nagar Haveli	558428	1844
30	Arunachal Pradesh	368971	6152
31	Tripura	366895	35833
32	Andaman & Nicobar Island	340618	15070
33	Manipur	148404	3162
34	Mizoram	66922	870
35	Nagaland	61397	3015

(Source: State/Union Territory Tourism Department)

3.4.2.2 Overview of Tourism in Assam

The location of the region is strategically important as it shares its border with Bangladesh, Bhutan, China, and Myanmar. The natural beauty of the place, rivers and mountains, Buddhist monasteries, serene natural environment, exotic flora and fauna, unique tribal culture, folk dance and music in the North Eastern region together offers an opportunity for development of tourism in the region.

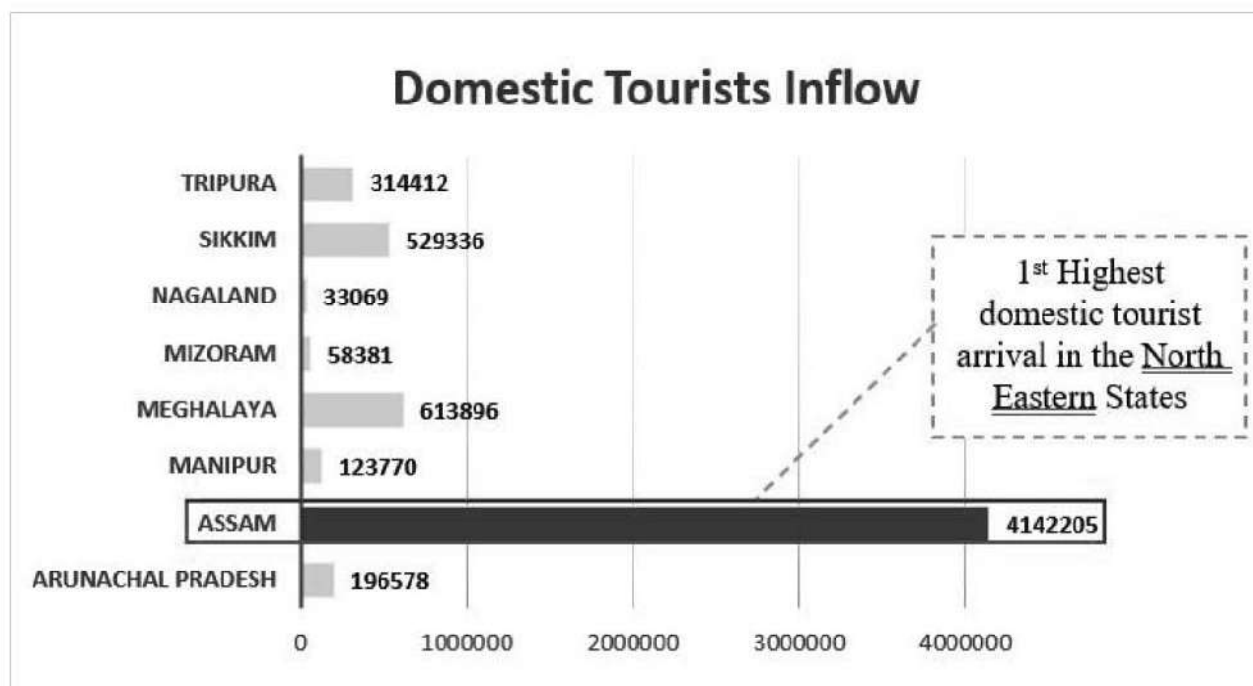


Figure 30 North Eastern States Wise Domestic Visitor Arrival in Assam (2005 - 2016)

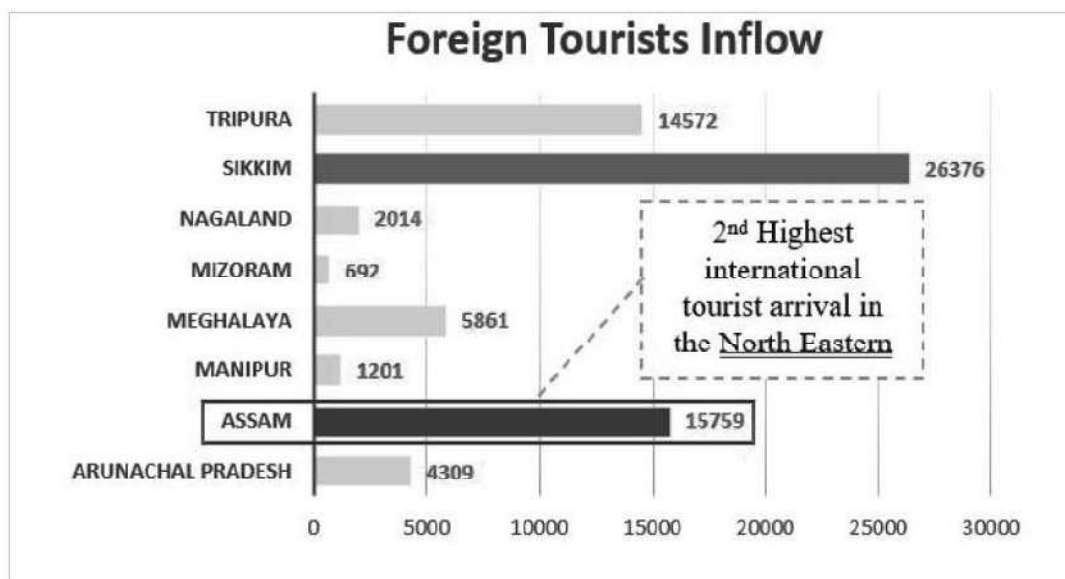


Figure 31 North Eastern States Wise Foreign Visitor Arrival in Assam (2005 - 2016)

(Source: State/Union Territory Tourism Department)

3.4.2.3 Assam State Tourists Inflow

The tourist in-flow of the Assam state shows that maximum tourist arrivals are the Domestic tourists and it clearly depicts that there is a growth in the Tourism Sector from 2005 – 2018. There is a huge scope for Tourism Industry in the Assam state.

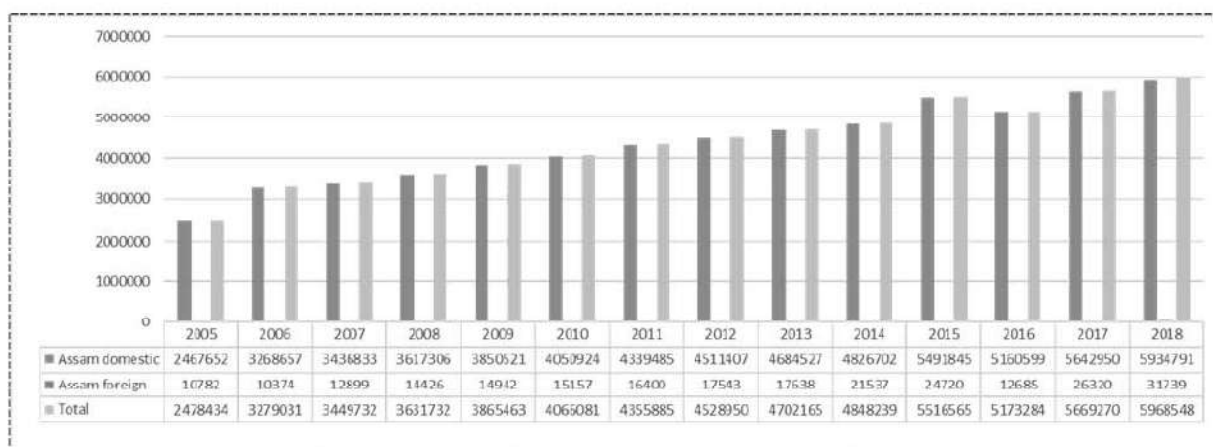


Figure 32 Assam State Tourists Inflow

(Source: State/Union Territory Tourism Department)



3.4.2.4 Assam Districts wise Tourists Inflow

Table 45 District wise tourists' inflow of Assam

Sr. No.	Name of the District	Domestic	Foreign	Total
1	Guwahati	607989	2202	610191
2	Tinsukia	123327	323	123650
3	Dibrugarh	115172	408	115580
4	Jorhat	97512	431	97942
5	Silchar	68183	127	68310
6	Tezpur	51093	234	51326
7	Dhubri	45170	55	45225
8	Subsagar	41961	188	42149
9	Kaziranga	34915	1789	36704
10	Barpeta	29366	91	29458
11	Lakhimpur	25841	12	25853
12	Goalpara	24325	48	24372
13	Golaghat	22182	7	22189
14	Nagaon	18252	21	18273
15	Dhemaji	5910	0	5910
16	Morigaon	4542	2	4544
17	Majuli	327	0	327
18	Hajo	282	10	292
19	Namen	224	54	278

(Source: State/Union Territory Tourism Department)

In the Tourists Centres of Assam, Guwahati has the highest Domestic and Foreign Tourists Inflow, followed by Tinsukia, Dibrugarh and Jorhat.

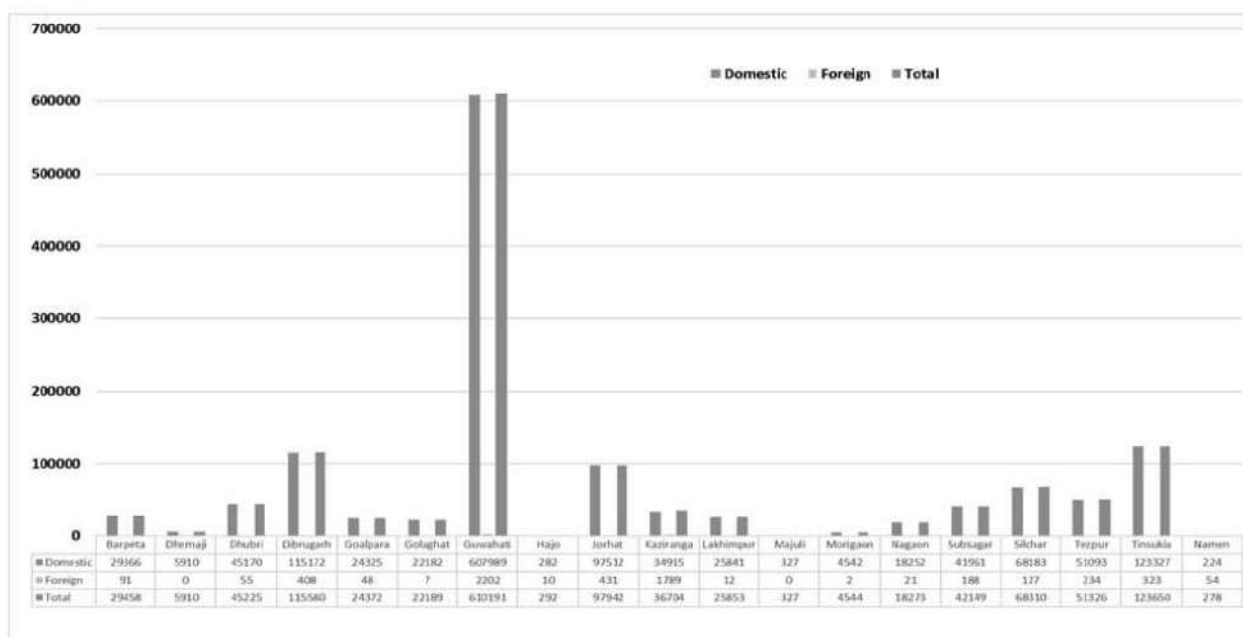


Figure 33 Tourists visits at the Tourists Centres/Districts of the Assam State (April 2005 – March 2006)

(Source: State/Union Territory Tourism Department)

3.4.3 HOTELS AND RESTAURANTS

Table 46 Hotels and restaurants

Sr. No.	Hotels	Employees	Rooms
1	Hotel Sharda	16	9
2	Hotel Borail View	50	53
3	Hotel Ellora	18	16
4	Hotel Gateway	10	22
5	Hotel Geetanjali	21	34
6	Hotel Hiranmoyee Lodge	9	14
7	Hotel Indraprastha Residency	14	27
8	Hotel Kalpataru	34	23
9	Hotel Maya	8	24
10	Hotel Sidhharth	21	49
11	Hotel Sudakshina	51	30
12	Hotel Swagat	8	15

(Source: Domestic Tourism Statistics, Assam, Ministry of Tourism)



3.4.4 TRANSPORT, STORAGE, AND COMMUNICATION

Silchar consist of a road network of 38.77 km under P.W.D. Rural division, 6.16 km under P.W.D. NH Division (under NH 53 a length of 3.16 km upto the Kalain point and under NH 54 a length of 3 km) and 136.03 km (constituted of lanes and by-lanes) under the Silchar Municipality. But the road network in the town is poor, in terms maintenance, but it is good in terms of linkage.

(Source: P.W.D. Roads (Rural) Division, P.W.D. NH Division, Silchar and Silchar Municipality).

3.4.5 FINANCIAL SERVICES SUCH AS BANKING INSURANCE ETC.

Registered with the District Consultative Committee, there are altogether 27 banks (as on 15/05/2015) having 50 branches in Silchar block including Silchar Municipal area (separate data for Silchar municipal area could not be availed). Out of this, 19 are Nationalized Banks, 1 RRB, 1 Co-operative Bank and 6 are private banks. The CD Ratio of Cachar district is 37.88%.

3.5 EMPLOYMENT

3.5.1 WORKFORCE PARTICIPATION IN GIS BASED MASTER PLAN AREA

The details of workforce participation of Silchar Planning Area for year 2011 is presented in the Table 47.

Table 47 Work force participation rate of Master Plan area

Sr. No.	Name of Area	Population	1	2	(1+2)	Non-Worker	% of Worker in total population	% of Non-Worker in total population
			Main Worker	Marginal Worker	Total Worker			
1	Silchar MB (28 Wards)	172830	54191	6625	60816	112014	35.19%	64.81%
2	2 Out Gro	6035	1971	195	2166	3869	35.89%	64.11%
3	10 Census Towns	75,666	21356	2302	23658	52008	31.27%	68.73%
4	85 Rural Villages	217178	55927	16099	72026	145152	33.16%	66.84%
Total		471709	133445	25221	158666	313043	33.64%	66.36%

(Source: Census of India, 2011)

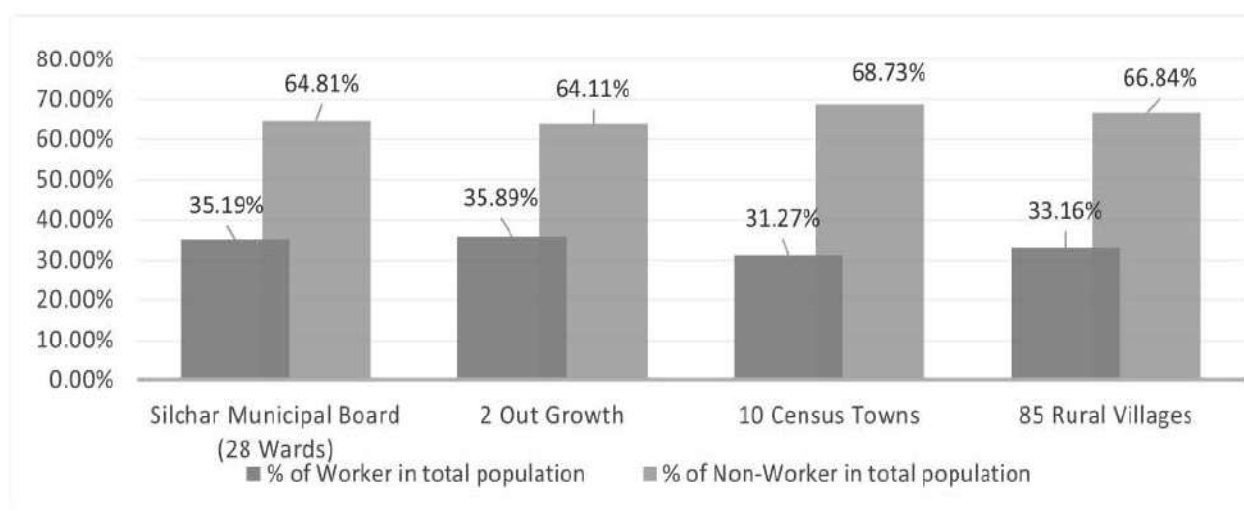


Figure 34 Work rate participation in planning area, 2011

The Table 47 reveals that the workforce participation rate (WPR) for the planning area for year 2011 is 33.64%. The highest workforce participation rate for the year 2011 is in Silchar OG area, whereas the lowest is observed in Census Towns.

The Figure 34 reveals that the workforce participation rate is almost near in Silchar Municipal Board and Rural area in last decade. It is also observed that the work force participation rate in 2011 is less in Census Towns compared to Silchar MB and Rural area. Hence, the less participation rate, the more the tax base shrinks. It depresses economic growth, and puts pressure on the budget of the region. The non-working ratio is almost same in Silchar MB and Rural area.

3.5.2 WORKING POPULATION – SILCHAR MUNICIPAL BOARD AREA

As per census 2011, the workers are classified into four categories agricultural cultivators, agricultural labourers, household industrial workers and other workers. In Silchar MB area, the distribution of economic base into type of sector namely primary sector, secondary sector & tertiary sector are imperative to provide a guideline for the development of entire planning area and creation of potential centers of development.

Table 48: Sector wise workforce participation ratio in Silchar MB area.

	Main Workers	Cultivators	Agriculture Labourer	Household Industries	Other Workers	Marginal Workers	Non Working
Male	1,14,088	8109	2512	1776	1,01,691	14,698	1,11,175
Female	19,357	627	559	1009	17,162	10,523	2,01,868
Total	1,33,445	8,736	3,071	2,785	1,18,853	25,221	3,13,043

(Source: Census of India, 2011)

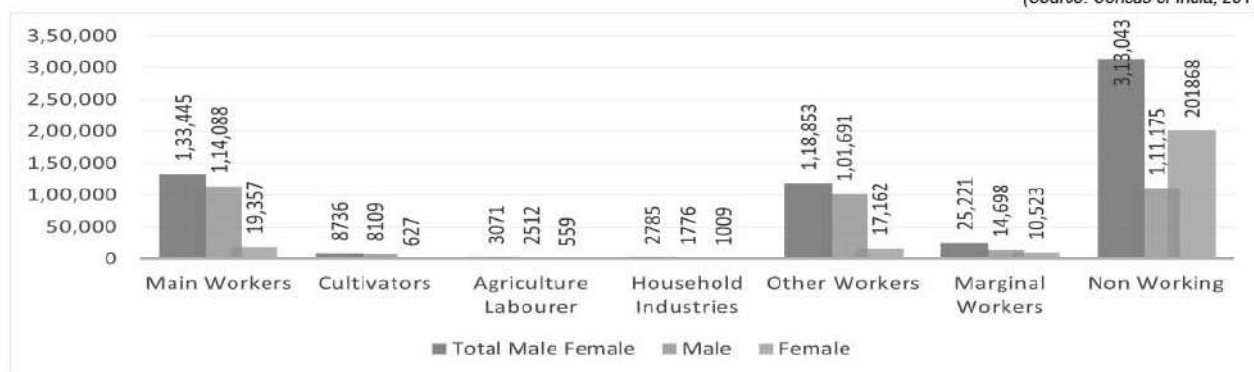


Figure 35 Sector wise distribution of workers in Silchar MB area.

It is evident from the Figure 35 that engagement in Non-working sector is higher compare to working sector and other category in 2011. This can be attributed to the very less opportunities for male and special female residents in municipal area which ultimately leads to higher number of unemployment. Less number of cultivators, agricultural labourer and household industry works indicates the low agricultural and industrial sectors in urban area.

The trend of the exorbitant increase in the employment in tertiary sector is indicative of the engagement of workers mainly in the service sector. There is need to balance this transformation into tertiary sector as well as primary sector for balanced economic development.

3.5.3 WORKFORCE DISTRIBUTION

Workforce distribution of population according to sectors is as mentioned below

3.5.3.1 Workforce Distribution by type of Workers

Table 49 Workforce distribution in planning area, 2011

Sr. No.	Name of Area	Population 2011	Total Worker	Main Worker	%	Marginal Worker	%	Non-Worker	%
1	Silchar MB(28 Wards)	172830	60816	54191	31.36	6625	3.83	112014	64.81
2	2 Out Growth	6035	2166	1971	32.66	195	3.23	3869	64.11
3	10 Census Towns	75666	23658	21356	28.22	2302	3.04	52008	68.73
4	85 Rural Villages	217178	72026	55927	25.75	16099	7.41	145152	66.84
Total		471709	158666	133445	28.29	25221	5.35	313043	66.36

The details of share of main, marginal and non-working population of the Silchar Master Plan Area is furnished in the table 49. This table reveals that less than one third (28.29%) of the total population is main workers, very meagre (5.35%) falls under marginal workers and nearly two third (66.36%) is non-workers in Silchar

Planning Area. The Higher share of non-working population indicates that lack of employment opportunities/ infrastructure is prevailing in the system. The highest percentage of main workers to the total population is in Silchar OG area while the lowest is in rural area. These phenomenon highlights that there is a shift from rural to urban migration i.e., urban migration was observed in the system during the year 2011.

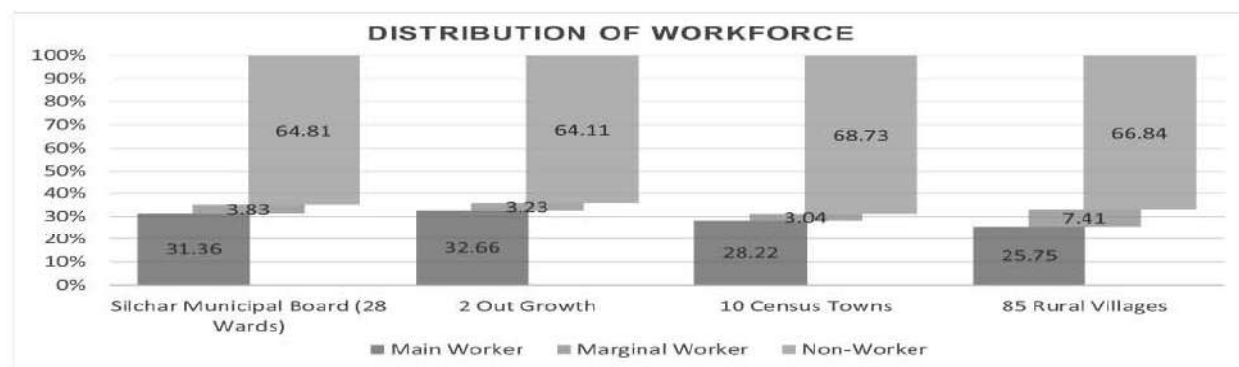


Figure 36 Workforce distribution by type of workers, 2011

3.5.3.2 Workforce distribution by sectors of economy

Table 50 Workforce Distribution by sectors of Economy (2011)

Particulars	Main Workers	Primary Sector		Secondary Sector	Tertiary Sector	%		
		Cultivators	Agricultural Labourer	Household Industry Workers	Other Workers	Primary Sector	Secondary Sector	Tertiary Sector
Silchar MB (28 Wards)	54191	102	95	1003	52991	0.36	1.85	97.79
2 Out Growth	1971	4	3	107	1857	0.36	5.43	94.22
10 Census Towns	21356	288	148	254	20666	2.04	1.19	96.77
85 Rural Villages	55927	8342	2825	1421	43339	19.97	2.54	77.49
Total	133445	8736	3071	2785	118853	8.85	2.09	89.07

(Source: Census of India, 2011)

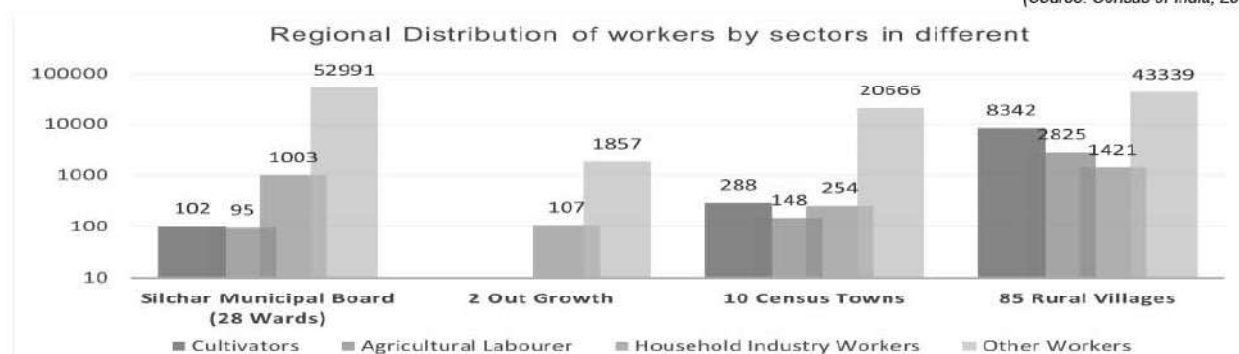


Figure 37 Type of working population for various areas of SMPA

The details of workforce distribution by sectors of economy are described in the table 50 reveals that out of the total working population of Silchar Planning Area, 8.85 % work in the primary sector, very meagre (2.09%) in secondary sector and almost major (89.07%) in tertiary sector. This composition clearly indicates that there is a higher dependency of working population on tertiary sector, followed by primary sector. However, in rural areas, dependency on primary sector is moderate. Silchar municipal board area is mainly dependent on tertiary sector as major commercial and activities are concentrated in and around the ward 18. As there are very less processing industrial establishments such as those that take the raw materials produced by the primary sector and process them into manufactured goods and products, the dependency on secondary sector is also very less.

3.6 EMPLOYMENT PROJECTIONS

3.6.1 WORKFORCE POPULATION PROJECTIONS FOR SILCHAR MASTER PLAN AREA

For workforce estimation the major concerns of the economic base are type of activity, employment rate, work force participation rate (WFPR), occupation structure etc. The overall development and opportunities in a town depend on the level of economic activities in an area.

The employment projection for working population for year 2045 is given in the table 51 below.

Table 51: Workforce projections of Silchar Master Plan area for year 2045

Year	Population	Working population	Growth Rate in Working Population	WFPR
1991	286537	99256	-	34.64
2001	398688	129853	30.8	32.57
2011	471709	158666	22.1	33.63
2021	559588	197031	24.2	35.21
2031	657796	240490	22.1	36.56
2041	751334	281825	17.2	37.51
2045	806933	310427	10.2	38.47

(Source: Compiled by Consultant)

Considering the scenario that the Workforce Participation Rate (WPR) will increase as the CDP projects will be implemented and more job opportunities will be created, the employment projection is calculated. After consecutive discussions with various govt. departments, the employment projection is worked out based on the optimistic scenario. Thus, the workforce participation rate for year 2045 is coming around 38.47%, which was 33.63% in year 2011 as per Census 2011. The total projected working population in Silchar Master Plan area for the horizon year 2045 is 310427.

3.6.2 SECTOR WISE PROJECTION OF WORKING POPULATION - 2045

For the year 2045 in Silchar the total workforce projected is 310427 out of which primary sector contributes to 1,15,168 which is about 37.1%, secondary sector contributes to 8692 of about 2.8% and about 186567 of about 60.1% is contributed by tertiary sector. Sector wise Workforce Participation for different plan phases is indicated in the table below.

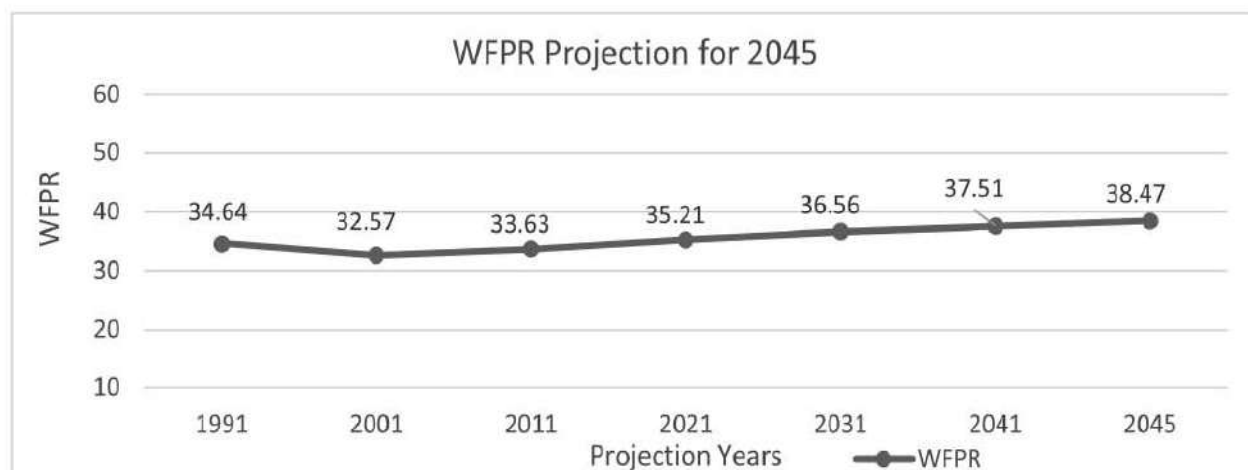


Figure 38 Work force participation for 2045

Table 52: Sector wise workforce population participation – 2045

Activity	2001		2011		2021		2031		2041		2045	
	Workers		Workers		Workers		Workers		Workers		Workers	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Primary	8051	6.2	16264	10.25	34,480	17.5	69021	28.7	98921	35.1	115168	37.1
Secondary	1818	1.4	3729	2.35	6,306	3.2	6974	2.9	6764	2.4	8692	2.8
Tertiary	119984	92.4	138673	87.4	1,56,245	79.3	164495	68.4	176140	62.5	186567	60.1
Total	129853	100	158666	100	197031	100	240490	100	281825	100	310427	100
WFPR	32.57		33.63		35.21		36.56		37.51		38.47	

(Source: Compiled by Consultant)

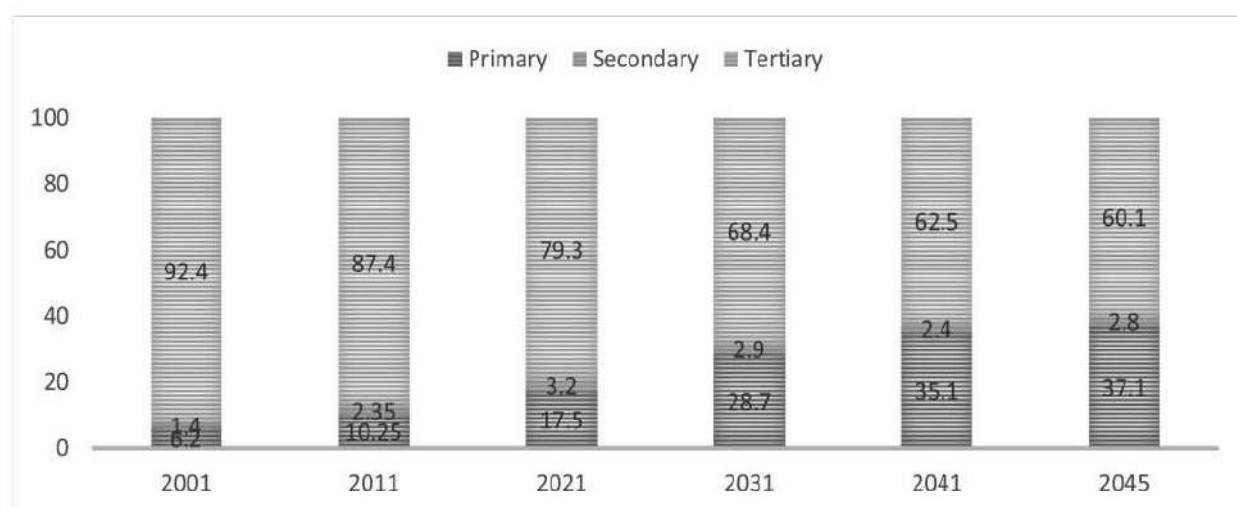


Figure 39 Sector wise workforce participation projection for year 2045

From the figure 39 it is observed that the working population in primary sector is gradually increased from year 2001 to 2011. From 2021 onwards the graph shows the steady growth in the primary working population due to the supporting policies for the agricultural sector. Beyond the policies, as a part of reducing the BPL population encouraging the active participation by the grass root level SHGs, farmers and labourers' forums would improve the relevance and the quality of the sector. In year 2045 the balance between primary and tertiary sector population seems to increase to satisfactory level.



3.7 WARD WISE WORK FORCE PARTICIPATION, 2011

Table 53 Ward wise workforce participation, 2011.

Ward No.	Total Workers			Main Workers			Other Workers			Marginal Workers			Non Workers		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
1	2074	1720	354	1952	1643	309	1930	1627	303	122	77	45	3983	1380	2603
2	2430	1966	464	2224	1828	396	2203	1814	389	206	138	68	4799	1593	3206
3	3509	2982	527	3228	2834	394	3162	2775	387	281	148	133	7424	2453	4971
4	1520	1158	362	1372	1087	285	1250	973	277	148	71	77	2564	861	1703
5	6239	5113	1126	5258	4523	735	5176	4465	711	981	590	391	12254	4142	8112
6	688	566	122	571	481	90	554	465	89	117	85	32	1224	377	847
7	2432	1946	486	1955	1678	277	1918	1651	267	477	268	209	4434	1620	2814
8	598	533	65	570	518	52	556	507	49	28	15	13	1205	424	781
9	1490	1365	125	1401	1289	112	1393	1282	111	89	76	13	2907	917	1990
10	1259	1089	170	1186	1042	144	1129	990	139	73	47	26	2668	849	1819
11	1284	1047	237	1252	1028	224	1244	1022	222	32	19	13	2191	698	1493
12	1839	1561	278	1710	1465	245	1688	1449	239	129	96	33	3442	1104	2338
13	1521	1224	297	1378	1142	236	1360	1131	229	143	82	61	2941	998	1943
14	2845	2409	436	2531	2227	304	2488	2199	289	314	182	132	5330	1789	3541
15	852	743	109	812	721	91	781	695	86	40	22	18	1739	558	1181
16	2186	1741	445	2116	1693	423	2112	1690	422	70	48	22	4070	1360	2710
17	2497	1983	514	2010	1700	310	1933	1655	278	487	283	204	4281	1427	2854
18	2664	2086	578	2414	1926	488	2327	1884	443	250	160	90	4633	1531	3102
19	2488	2043	445	2308	1932	376	2291	1919	372	180	111	69	4780	1630	3150
20	1599	1315	284	1513	1269	244	1499	1266	233	86	46	40	2867	918	1949
21	1400	1024	376	1275	993	282	1253	974	279	125	31	94	2433	836	1597
22	1791	1288	503	1724	1261	463	1713	1253	460	67	27	40	3122	1076	2046
23	1015	740	275	871	685	186	853	677	176	144	55	89	1687	711	976
24	3608	2765	843	3017	2486	531	2947	2440	507	591	279	312	5900	2038	3862
25	2609	2061	548	2431	1949	482	2415	1939	476	178	112	66	4697	1677	3020
26	2524	1983	541	2201	1785	416	2168	1762	406	323	198	125	5445	1935	3510
27	2962	2116	846	2593	1975	618	2411	1848	563	369	141	228	4746	1765	2981
28	2893	2217	676	2318	1899	419	2237	1836	401	575	318	257	4248	1433	2815

3.7.1 WARD WISE WORKING POPULATION PROFILE

According to Census of India, 2011, Ward no. 22 has the highest percentage i.e. 10% and 9% of total workers and main workers respectively.

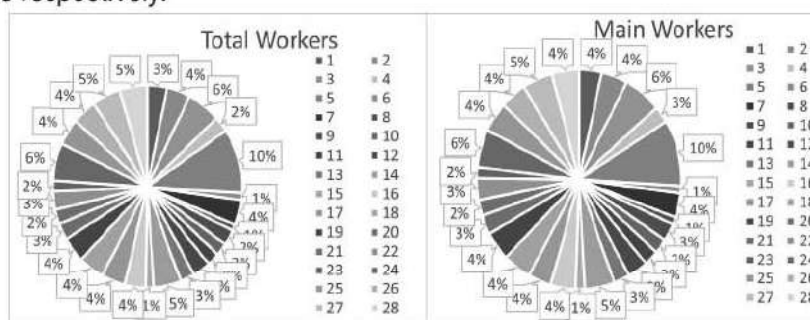


Figure 40 Ward wise working population

(Source: District Census Handbook Silchar, 2011)

Ward no. 1, 3 and 11 have the lowest percentage i.e. 2% of total workers also main workers. Ward no. 8 has the highest percentage 23% of cultivators and ward no. 10 has no cultivator. In case of agricultural labourers, ward no. 5 has highest of 17% and ward no. 1 has none.

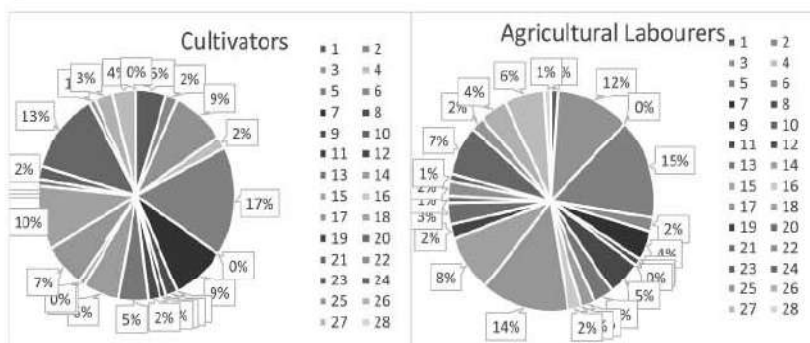


Figure 41 Ward wise working cultivators and agriculture labours

Ward no. 22 has the highest percentage of household industry workers and other workers of 22% and 9% respectively and ward no. 1, 3, 4 % 11 have the lowest of 1% in household industry workers, also ward 1, 3 & 11 have the lowest of 2% in other workers.

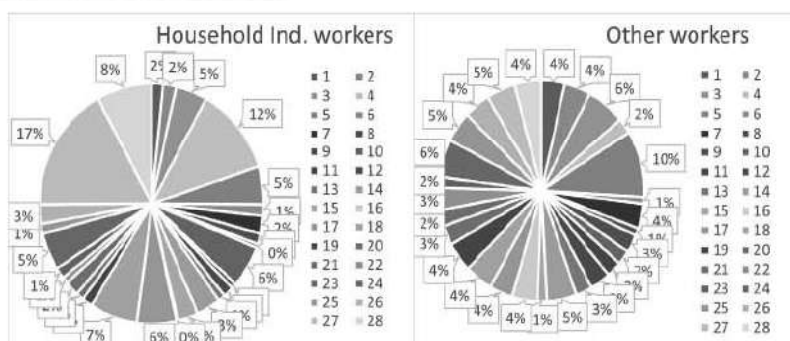


Figure 42 Ward wise households' workers and other workers

(Source: District Census Handbook Silchar, 2011)

Ward no. 22 has the highest percentage of marginal workers and non-workers of 15% and 9% respectively. Ward no. 1, 10 & 11 have the lowest percentage of 1% of marginal workers and non-workers of 1% in ward no. 11.

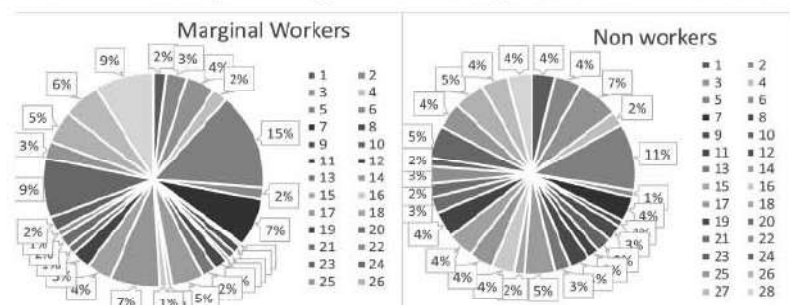


Figure 43 ward wise marginal and non-workers

3.8 WARD WISE OCCUPATIONAL CLASSIFICATION OF MAIN WORKERS, 2011

Table 54: Ward wise occupational classification of Main workers, 2011.

Ward No.	Total Workers			Cultivators			Agricultural labourers			Household Industrial workers			Other workers		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
1	2074	1720	354	5	4	1	1	1	0	16	11	5	1930	1627	303
2	2430	1966	464	2	1	1	0	0	0	19	13	6	2203	1814	389
3	3509	2982	527	9	8	1	11	9	2	46	42	4	3162	2775	387
4	1520	1158	362	2	1	1	0	0	0	120	113	7	1250	973	277
5	6239	5113	1126	17	14	3	14	13	1	51	31	20	5176	4465	711
6	688	566	122	0	0	0	2	2	0	15	14	1	554	465	89
7	2432	1946	486	9	4	5	4	4	0	24	19	5	1918	1651	267
8	598	533	65	0	0	0	0	0	0	14	11	3	556	507	49
9	1490	1365	125	2	2	0	1	1	0	5	4	1	1393	1282	111
10	1259	1089	170	0	0	0	0	0	0	57	52	5	1129	990	139
11	1284	1047	237	1	1	0	0	0	0	7	5	2	1244	1022	222
12	1839	1561	278	2	2	0	5	4	1	15	10	5	1688	1449	239
13	1521	1224	297	5	4	1	3	1	2	10	6	4	1360	1131	229
14	2845	2409	436	6	2	4	2	1	1	35	25	10	2488	2199	289
15	852	743	109	1	1	0	0	0	0	30	25	5	781	695	86
16	2186	1741	445	0	0	0	2	2	0	2	1	1	2112	1690	422
17	2497	1983	514	7	4	3	13	7	6	57	34	23	1933	1655	278
18	2664	2086	578	10	6	4	8	6	2	69	30	39	2327	1884	443
19	2488	2043	445	0	0	0	2	2	0	15	11	4	2291	1919	372
20	1599	1315	284	0	0	0	3	1	2	11	2	9	1499	1266	233
21	1400	1024	376	1	1	0	1	1	0	20	17	3	1253	974	279
22	1791	1288	503	0	0	0	2	2	0	9	6	3	1713	1253	460
23	1015	740	275	2	1	1	1	1	0	15	6	9	853	677	176
24	3608	2765	843	13	9	4	7	5	2	50	32	18	2947	2440	507
25	2609	2061	548	1	0	1	2	2	0	13	8	5	2415	1939	476
26	2524	1983	541	3	3	0	4	3	1	26	17	9	2168	1762	406
27	2962	2116	846	4	3	1	6	5	1	172	119	53	2411	1848	563
28	2893	2217	676	0	0	0	1	1	0	80	62	18	2237	1836	401
Total	60816	48784	12032	102	71	31	95	74	21	1003	726	277	52991	44188	8803

4 EXISTING LAND USE ANALYSIS-2020

Land is the habitat of men, and its wide use is crucial for the economic, social, and environmental advancement of all countries. Land is partitioned for administrative and economic purposes, and it is used and transformed in a myriad way. Land use is the use of land made by man. It is broad and important term used to classify land according to its use. Land use is commonly used to refer the spatial distribution of functions in each area. The study of land use holds a very significant place where a particular settlement can be recognized as a town depends on its functional structure. The functional activity can be regarded as the main regions for the growth of an urban centre. The main purpose of land use study is to provide framework for the development of a particular area. it gives us an idea about the proportion of various types of land. Landuse give an accurate picture of an urban area which is having a great significance for future planning. The main purpose of land use classification is to provide framework for the development of a particular area. The need for studying the land use aspect is elaborated as follows: To know the arrangement of various parts of town put to different uses such as residential, commercial, industrial etc. To provide standardize distribution of land use. Land use study provides the framework for the development of a particular area and direction of development. It gives us an idea about the proportion of various types of use of land.

As part of the preparation of GIS Based Master Plan - 2045, an extensive existing land use survey was carried out for the entire Silchar Planning Area. The Existing Land Use was updated based on ground reality on the scientific base map prepared with the help of Satellite Image and Revenue records like village level cadastral sheets, Field Measurement Book sheets and Town Survey Sheets. The Silchar Planning Area is administratively divided into two entities, Urban and Rural. Urban area comprises Municipal Board area comprising 28 Wards, 10 Census Towns and 2 Out Growths and Rural area comprises 85 Villages. This chapter presents the existing landuse analysis, 2020 for conurbation, rural and overall planning area. Further the existing land use analysis of the proposed Master Plan area is also discussed to understand the current scenario of the new conurbation area.



4.1 CONURBATION AREA

The Conurbation area is a continuous urban area comprising of towns and their outgrowths merged with each other due to physical expansion and population growth. In the case of Silchar, conurbation area includes one Municipal Board area namely Silchar Municipal Board, 3 Census Towns (Ambikapur X, Tarapur VI and Tarapur VII) and 2 Outgrowth area (Silchar XI and Tarapur VIII). The total Conurbation area is 24.66 sq.km, out of which SMB comprise 15.75 sq.km whereas OG and CTs comprises 8.91 sq.km. area (excluding Barak River). The detailed existing land use analysis of conurbation is presented in table 4-2. Silchar Conurbation is bound by Barak River & Dudhpatil V-VI on North-East, Topkhana II & Tarapur V-III on Western side and Ambikapur XI and Uttar Krishnapur I (CT) on the Southern side.

Table 55 Details of Silchar Conurbation

Sr. No.	Description	Details
1	Area	24.66 sq.km.
2	Gross Density	8470 person / square km. (85 pph)
3	Net Density	20887 person / square km (146 pph)
4	Loaction	City Centre
5	Major Landmarks	Silchar Railway Station, Cachar College, Silchar Court, Silchar Municipal Board, DRDA Cachar, DSA Ground, DTO Office, Circuit House, Imperial Mall, Gandhi Park, Oriental Talkies, Civil Hospital, Mizoram House

One of the predominant landmark areas within conurbation is the CBD of the Silchar region lies in the heart of the Silchar Municipal Board area. As per the evolution of core city area, the CBD area is the block between North of Ukil Patty Street and South of Sadarghat Junction road and West of Barak River and East of Club Road. Another dominant area is the unorganized Retail Market space which has parallelly extended along both the sides of Central Road in the core area of SMB. This commercial stretch is parallelly accompanied by sub commercial stretch traditionally known as Shillong Patty Road on the West of Central Road and Tula patty commercial street on the East. City's major commercial activities lies along the Central Road, Shillong Patty, Tula patty Road, SS Paul Road, Hailakandi Road, Fatak Bazar Road, Ambicapatty road, and Mizoram Road. Another major landmark in this precinct is Gandhibag Park which is a recreational site for the local as well as floating population. Silchar Railway station, DSA Outdoor Sports Ground, M Baazar Mall, Goldighi Municipal Mall and Silchar Court are also other major landmarks located in SMB area.

The existing land use analysis chart for urban area - 2020 is presented in figure 44. In urban area, 11.13 sq.km of land is under Residential use and it is the predominant land use in this region. The Commercial sector in the urban area is occupying 2 sq.km of land use. Traffic & Transportation land use covers 1.53 sq.km of area in urban area. Vacant land use is around 3.02 sq.km and Waterbody is 2.46 sq.km, Agricultural land use is 2 sq.km of the urban area. The Public & Semi-Public land use covers 0.07 sq.km in the urban area. The Mixed land use is 0.03 and Industrial land use is observed 0.15 sq.km. The Existing Land Use Map - 2020 for the entire urban area is illustrated in figure 45.

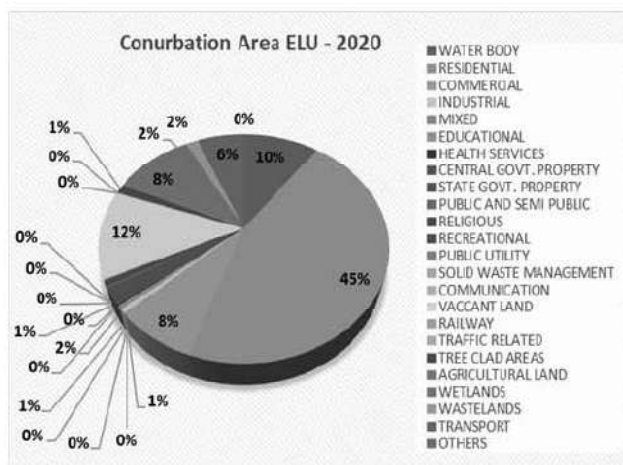


Figure 44 Existing Landuse Analysis of Conurbation area

Table 56 Existing Land Use Analysis of Conurbation Area - 2020

Sr. No.	Landuse Types	Area (Sq Km)	Percentage Area (%)
1	Residential	11.13	45.13
2	Commercial	2	8.11
3	Industrial	0.15	0.61
4	Mixed	0.03	0.12
5	Educational	0.1	0.41
6	Health Services	0.03	0.12
7	Central Govt.Property	0.2	0.81
8	State Govt.Property	0.4	1.62
9	Railway	0.02	0.08
10	Public And Semi Public	0.07	0.28
11	Religious	0.05	0.20
12	Recreational	0.13	0.53
13	Public Utilities	0.015	0.06
14	Solid Waste Management	0.007	0.03
15	Communication	0.02	0.08
16	Traffic Related	0.01	0.04
17	Vacant Land	3.02	12.25
18	Transportation	1.52	6.16
19	Green Areas	0.3	1.22
20	Agricultural Land	2	8.11
21	Water Bodies	2.46	9.98
22	Wetlands	0.6	2.43
23	Wasteland	0.4	1.62
24	Others	0.0007	0.00
Total		24.66	100





4.1.1 RESIDENTIAL

The residential land use is the predominant use in urban area and it covers 11.13 sq km of area which is around 45.13 % of the total of Conurbation area. Residential use is dominant on the Southern and Central part of the Silchar town and it is one of the oldest residential settlement within the Silchar Municipal Board. Other major settlement contributing to the residential use in the urban area are Itkhola, Manipuri Para, Malugram, Tarapur, Ambikapatty and Padamnagar which are major residential area in this urban area. Tarapur VI-VII, Ambikapur X and Silchar XI are other revenue villages contributing to the residential land use.

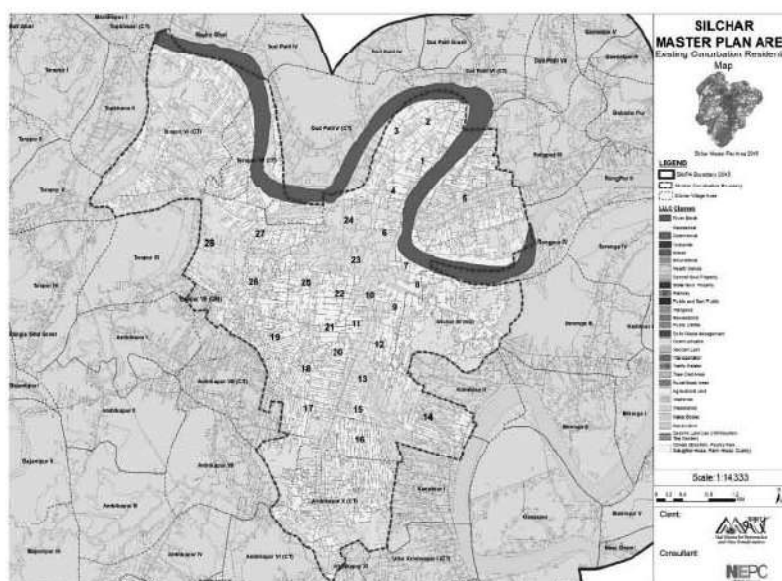


Figure 46 Residential Land Use - Conurbation

4.1.2 COMMERCIAL

The Commercial land use in the urban area accounts to 8.11% (2.0 sq.km.) of the total area of the Conurbation. The CBD of the Silchar region is the major contributor for the commercial land use in this urban area. Other than the CBD, commercial land use is observed in the central part of the Silchar town which is the Devdoot Point and Shillong Patty surrounding area. Predominant commercial use is found on both the sides of Central Road, Tula Patty Road, Nahata Patty, Rangirkhari Road, Janigunj and Mizoram Road within the conurbation area.

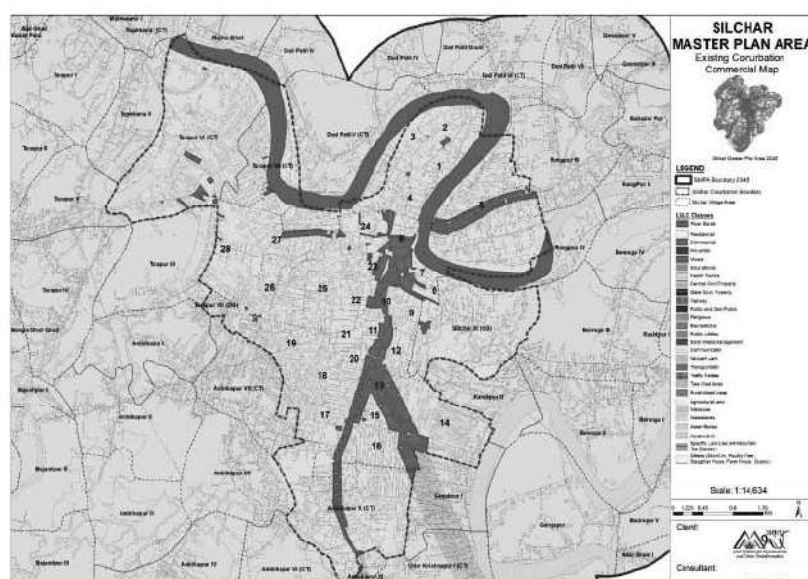


Figure 47 Existing Commercial Land use - Conurbation

The Industrial Landuse covers around 0.15 sq.km of the Urban area which accounts to 0.61% of the total area of the conurbation. Out of this, major portion is under Malinibeel Industrial area which is currently functional, and this provides an opportunity for earmarking these land parcels for uses like medium industries or for development of estates.

Figure 48 Existing Industrial Land use - Conurbation

The Public & Semi-public Landuse in the urban area is about 0.07 sq.km which is around 0.28 % of the total area of the Conurbation. The Silchar town accommodates several government offices like DC Office, District Court, District library, Circuit House, Legislative Assembly, Department of Revenue, Public Works Department etc. Further, it has been observed that there are good number of religious buildings like Temples, Churches & Mosques which contributes to the Public & Semi-Public landuse of the Conurbation area.

Figure 49 Existing Public and Semi-Public Land use - Conurbation

4.1.5 OPEN SPACES

The recreational land use within the urban area accounts to 0.13 sq.km which is around 0.53% of the total area of the Conurbation. The important recreational sites within this area are Gandhibag Park in Southern-west part of Town, India Club Indoor Stadium near India club circle, DSA Outdoor Sports Ground situated and Gandhi Mela ground in the city centre side of the Silchar town, Children's Park near Kendriya Vidyalaya Road.

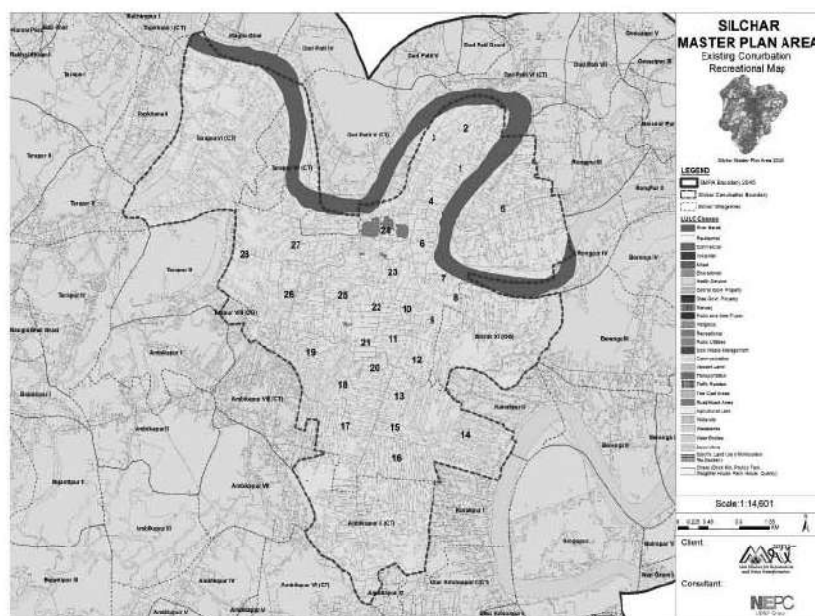


Figure 50 Existing Recreational Land Use - Conurbation

4.1.6 TRAFFIC & TRANSPORTATION

Traffic & Transportation covers 1.53 sq.km which is around 6.16 % of the total area of Conurbation. Large land parcels coming under the traffic & transportation land use in this region are Railway Station and ASTC bus stand. Major roads within the urban area are Central Road, Lumbding-Silchar road, Club Road, NH-306, NH-37, Park Road, Fatak Bazar Road, Mizoram Road, Meherpur Road etc.

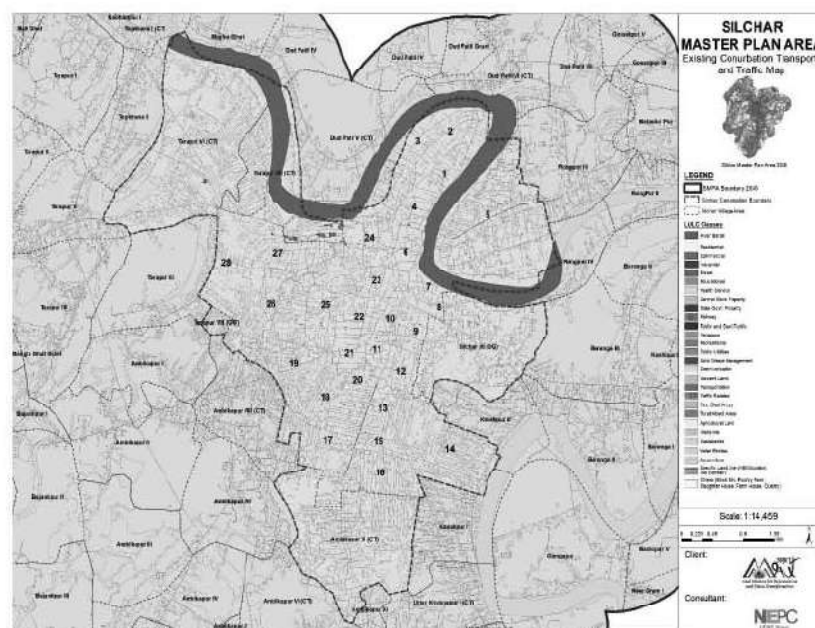


Figure 51 Existing Transportation Land Use - Conurbation

4.1.7 VACANT

In urban region around 3.02 Sq.km of land is vacant as on year 2020, which accounts for 12.25% land of the total area. Major vacant parcels are located in the Ward-5, revenue villages of Tarapur VI-VIII, Ambikapur X, Silchar XI & Ward 14. In these villages and wards, a lot of land is developed into layouts and are currently lying vacant. These lands can be utilized for addressing the future needs of the planning area for the plan period.

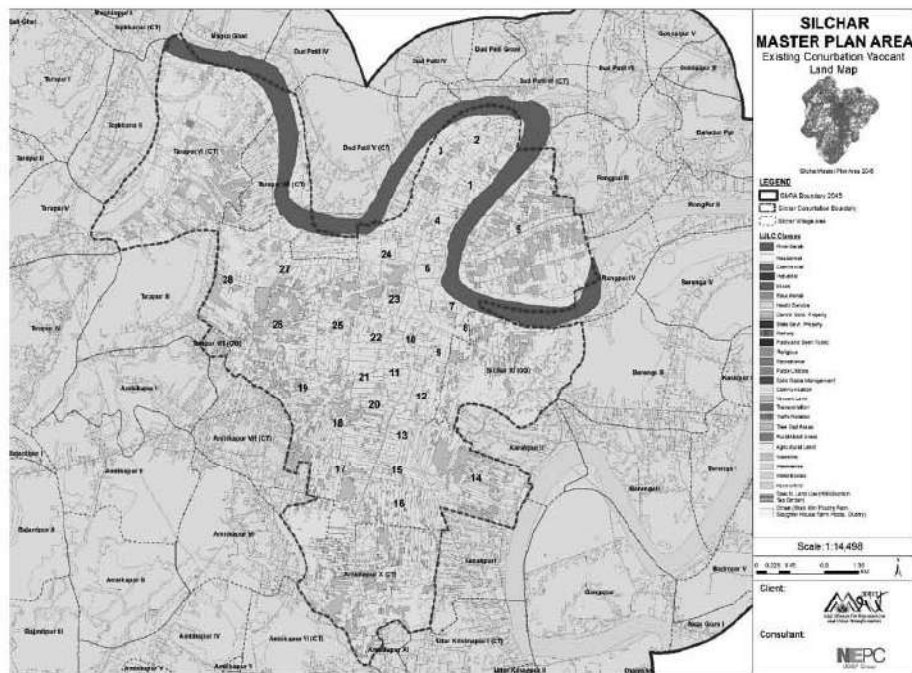


Figure 52 Existing Vacant Land Use - Conurbation

4.1.8 PROTECTED & UNDEVELOPABLE USE

Silchar urban area has 3.46 sq km of area falling under protected and undevelopable land use zone. Majority of the area falling under this category is covered by wetlands Tree Clad and Barak riverbed.

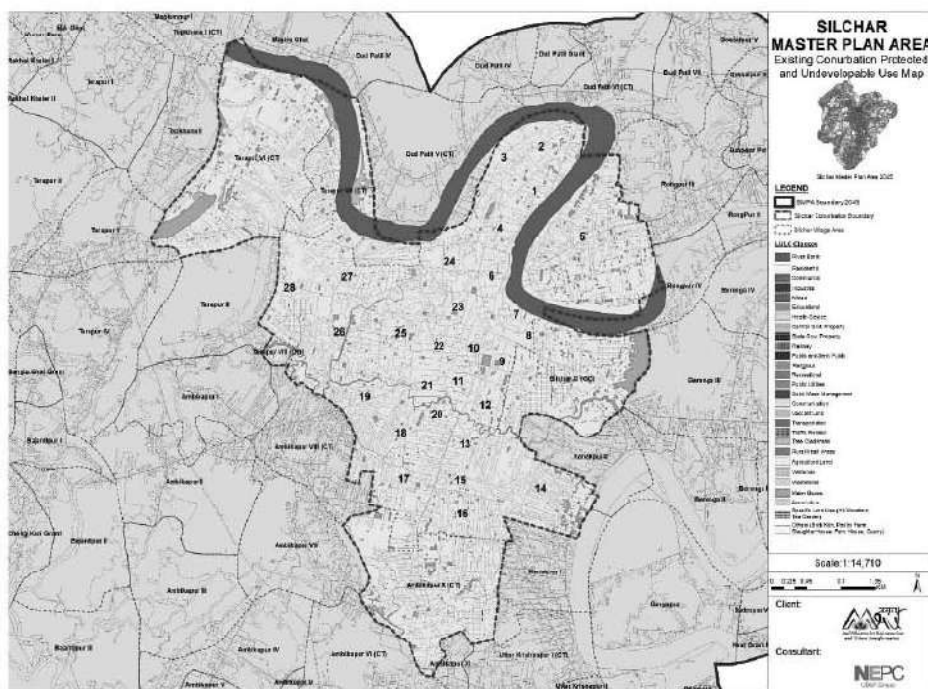


Figure 53 Existing Undevelopable Land Use- Conurbation

4.2 RURAL AREA

Silchar Planning Area accommodates total 85 villages and 7 Census Towns as rural area. The total area covered by rural region is 149.42 sq.km. All these villages fall under Silchar revenue circle of Cachar District. The detailed existing land use analysis of Silchar Rural Area - 2020 is presented in table 57.

Table 57 Details of Rural Area

Sr. No.	Description	Details
1	Area	149.42 sq.km.
2	Gross Density	1759 person / square km. (17 pph)
3	Net Density	10384 person / square km. (103 pph)
4	Location	South and South-West of City Centre
5	Major Landmarks	Arunachal Junction Railway Station, New Silchar Railway Station, ITI, Barak Valley Secretariat, BSF Cantonment, Assam Police Battalion HQ, NIT Sidhar, Medical College and Hospital

One of the predominant Landmark in the rural Silchar is the National Institute of Technology (NIT, Silchar) which lies on SH-39 (Hailakandi road) in Borakai Grant village. Silchar Medical College and Hospital, Assam Police Battalion Reserve, Barak Valley Secretariat are also important landmark located within rural MPA.

The Existing Land Use analysis chart for Rural area - 2020 is presented in figure 55. In rural area, 55.4 sq.km of land is under Agricultural use and it is the predominant land use in this region. Waterbody occupies 22.7 sq.km area and Tree clad and Green area covers 10.75 sq.km of area. Residential area occupies 21.16 sq.km of land and Industrial land use occupies 0.5 sq.km of area in rural area. Wetland covers 3.64 sq.km, Vacant land use is around 3.64 sq.km. Commercial land use is 1.3 sq.km of the rural area. The Public & Semi-Public land use covers 0.5 sq.km in the urban area. The Mixed landuse is 0.03 sq.km and recreational landuse is observed 0.14 sq.km. The existing land use Map - 2020 for the entire Rural area is illustrated in figure 54.

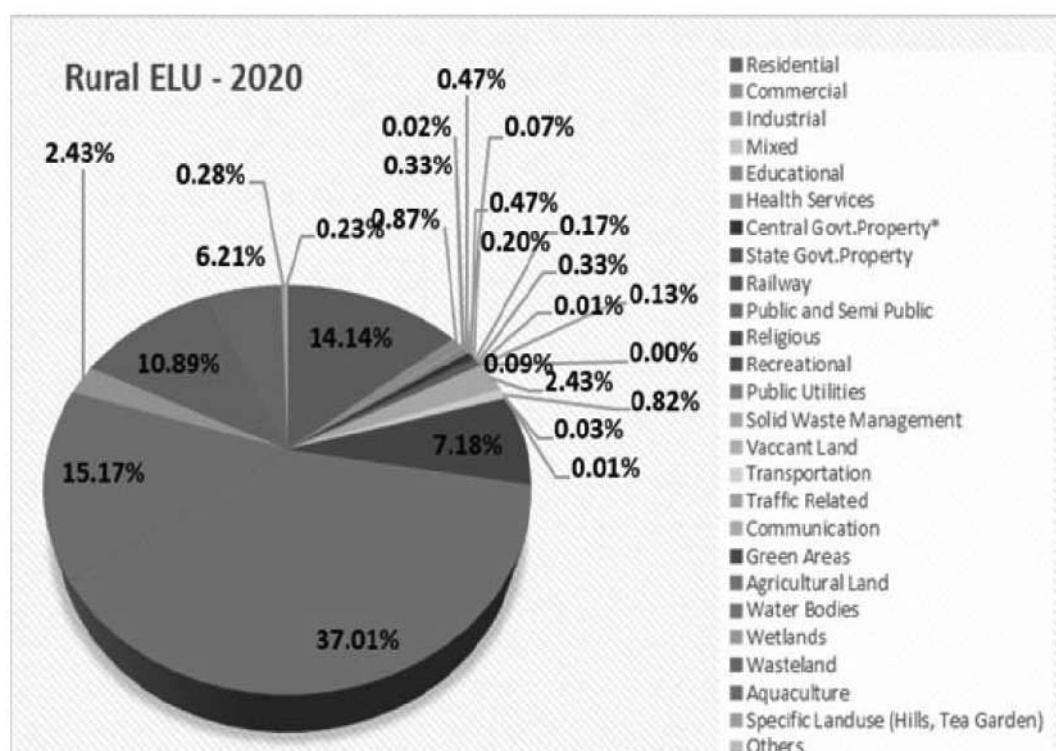


Figure 54 Existing Land Use Analysis - 2020, Rural Area

Table 58 Existing Land use Analysis for Rural Silchar - 2020

Sr. No.	Landuse Type	Area (Sq Km)	Percentage (%)
1	Residential	21.16	14.16
2	Commercial	1.3	0.87
3	Industrial	0.5	0.33
4	Mixed	0.03	0.02
5	Educational	0.7	0.47
6	Health Services	0.1	0.07
7	Central Govt. Property*	0.7	0.47
8	State Govt. Property	0.3	0.20
9	Railway	0.26	0.17
10	Public and Semi Public	0.5	0.33
11	Religious	0.02	0.01
12	Recreational	0.14	0.09
13	Public Utilities	0.2	0.13
14	Solid Waste Management	0.00	0.00
15	Vaccant Land	3.64	2.44
16	Transportation	1.22	0.82
17	Traffic Related	0.04	0.03
18	Communication	0.015	0.01
19	Green Areas	10.75	7.19
20	Agricultural Land	55.4	37.08
21	Water Bodies	22.7	15.19
22	Wetlands	3.64	2.44
23	Wasteland	16.3	10.91
24	Aquaculture	9.3	6.22
25	Specific Landuse (Hills, Tea Garden)	0.42	0.28
26	Others	0.35	0.23
Total		149.42	100



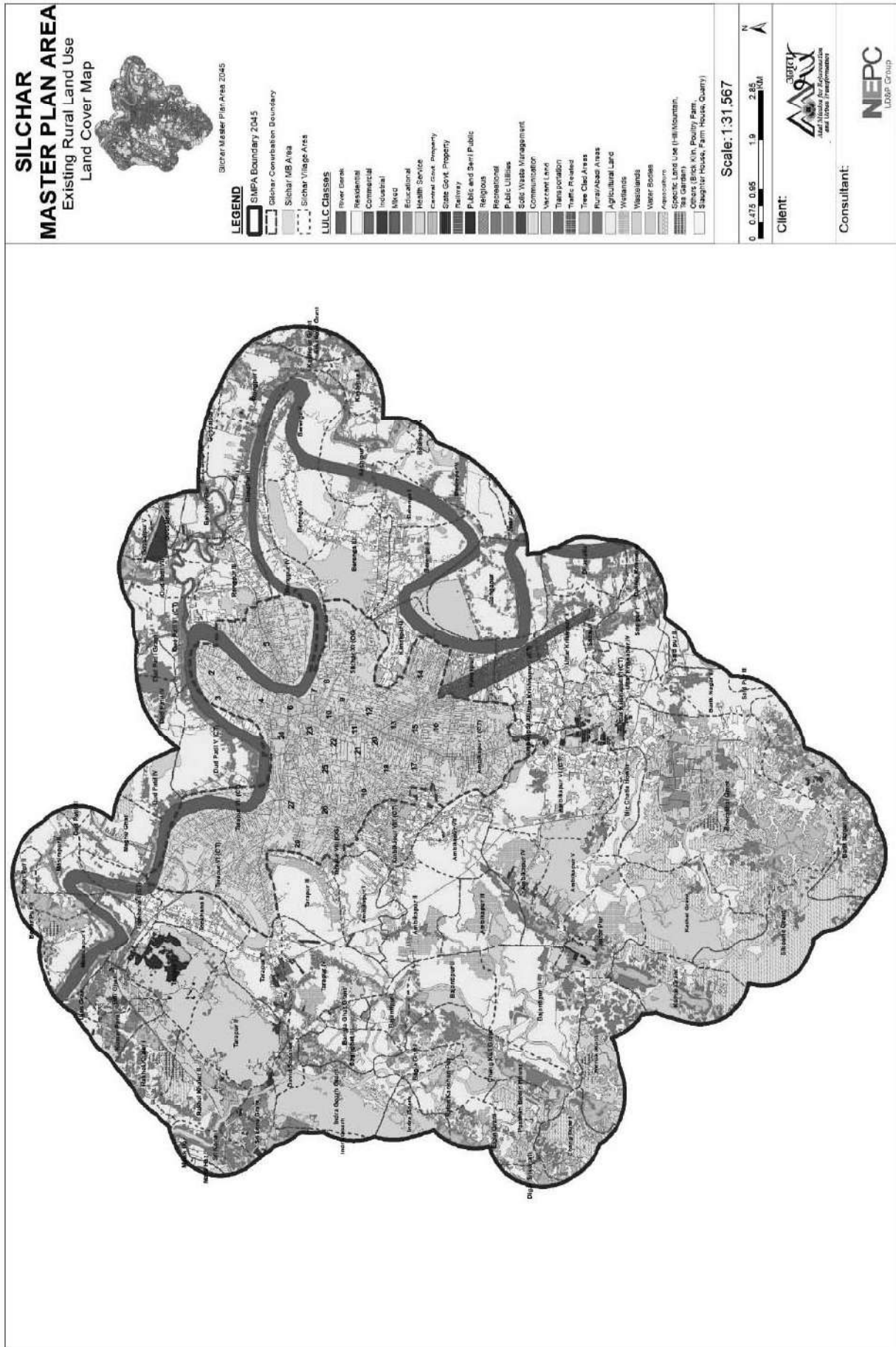


Figure 55 Existing Land Use Map - 2020, Rural Area

The residential land use is one of the major land use in rural area and it covers 21.16 sq km of area which is around 14.16 % of the total area of the rural Silchar. Residential use is dominant on the Southern side and east part of the SMPA.

Figure 56 Existing Residential Landuse - Rural area

The commercial land use in the rural Silchar accounts to 0.87% (1.3 sq.km.) of the total rural area of the SMPA.

Figure 57 Existing Commercial Landuse - Rural area

The Industrial Landuse covers around 0.5 sq.km of the rural area which accounts to 0.33% of the total area of the Villages. Out of this, major portion is under IOCL industries which is currently functional and this provides good employment opportunity for economic development of the region.

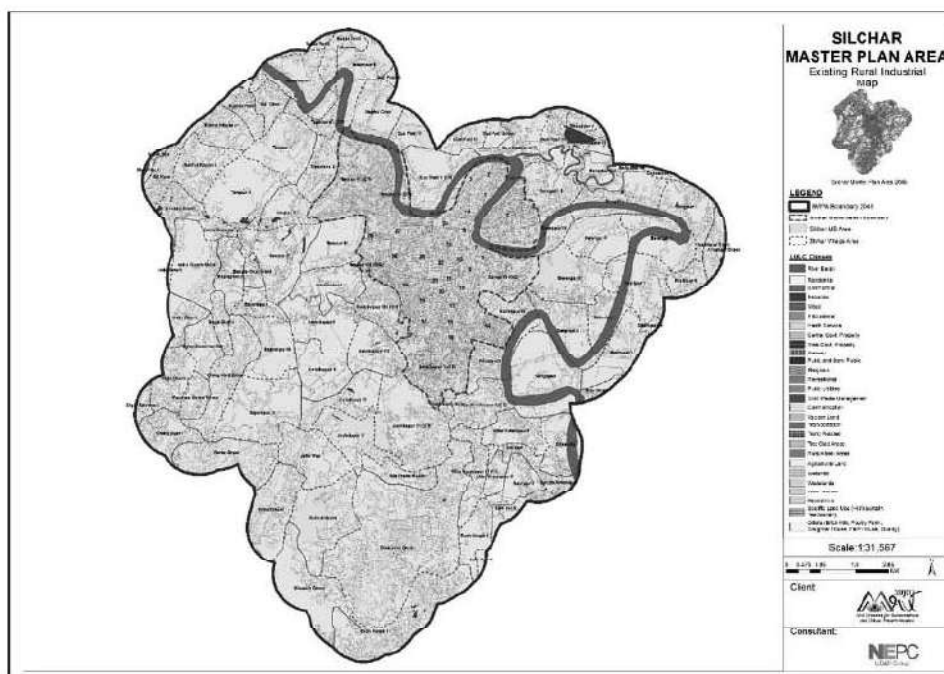


Figure 58 Existing Industrial Landuse - Rural Area

The Public & Semi-public Landuse in the rural area is about 0.5 sq.km which is around 0.33 % of the total area of the village area. The rural area accommodates BSF and Assam Police Battalion HQ. as major public places within SMPA.

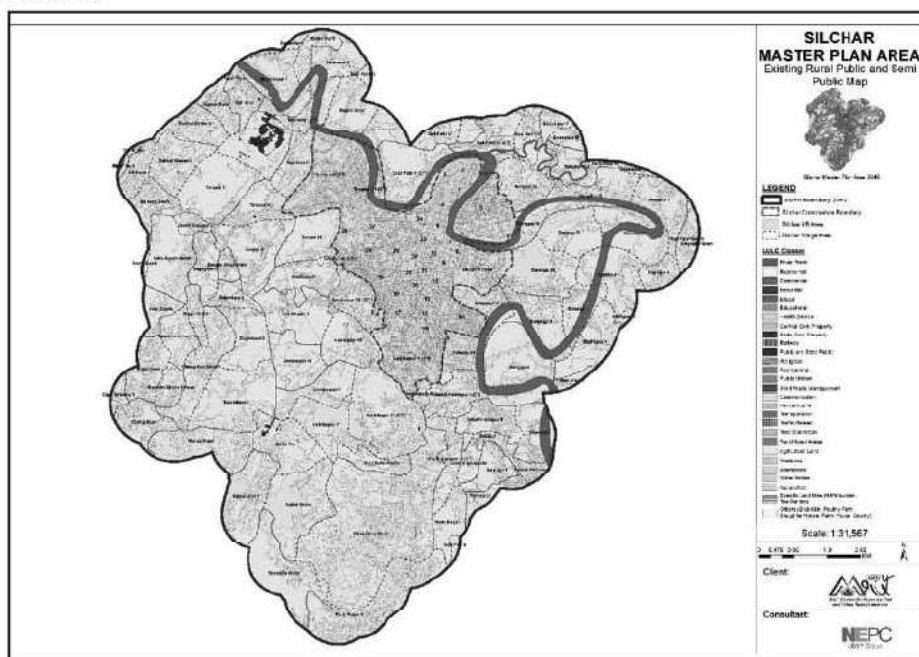


Figure 59 Existing Public and Semi-Public Land use - Rural Area

4.2.5 OPEN SPACES

The recreational land use within the rural area accounts to 0.14 sq.km which is around 0.09% of the total area of the region. The important recreational sites within the rural area are located at ITI and NIT Silchar province. Open space like football grounds are observed on east part in Kishanpur village.

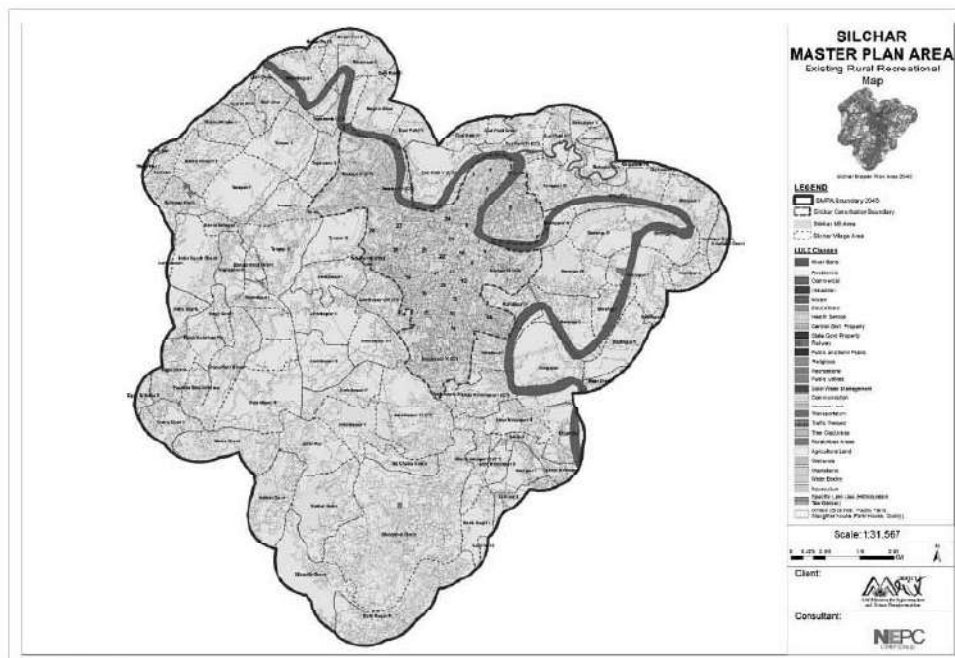


Figure 60 Existing Open Space Land Use - Rural Area

4.2.6 TRAFFIC & TRANSPORTATION

Traffic & Transportation covers 1.26 sq.km which is around 0.85 % of the total area of rural land cover. Large land parcels coming under the traffic & transportation land use in this area are Arunachal Junction Railway Station and New Silchar Railway Station.

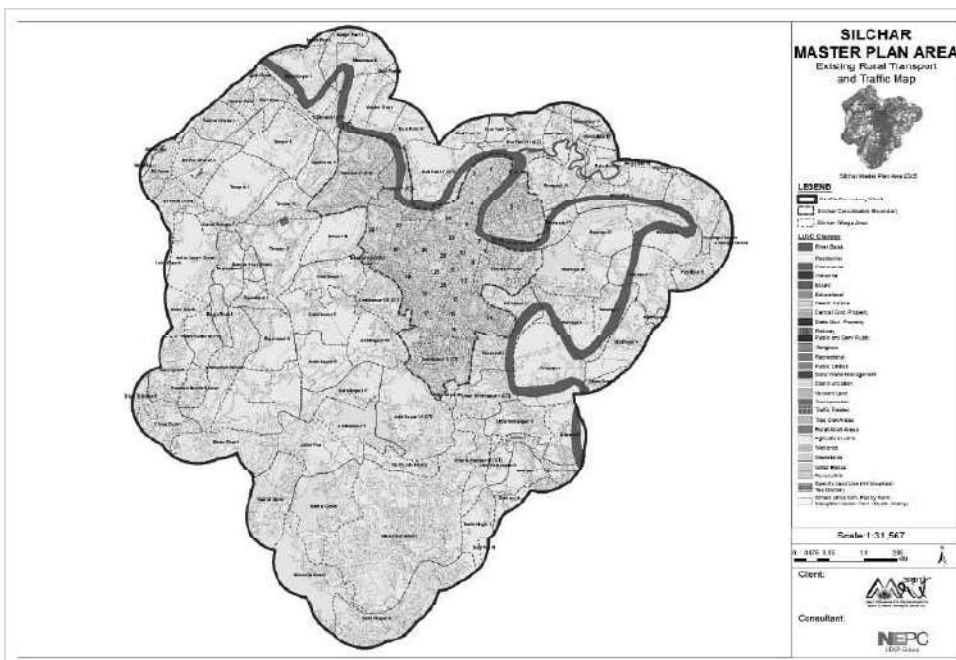


Figure 61 Existing Transportation Land Use - Rural Area

4.2.7 VACANT

In Silchar rural around 3.64 sq.km of land is vacant as on year 2020, which accounts for 2.44% land of the total rural area.

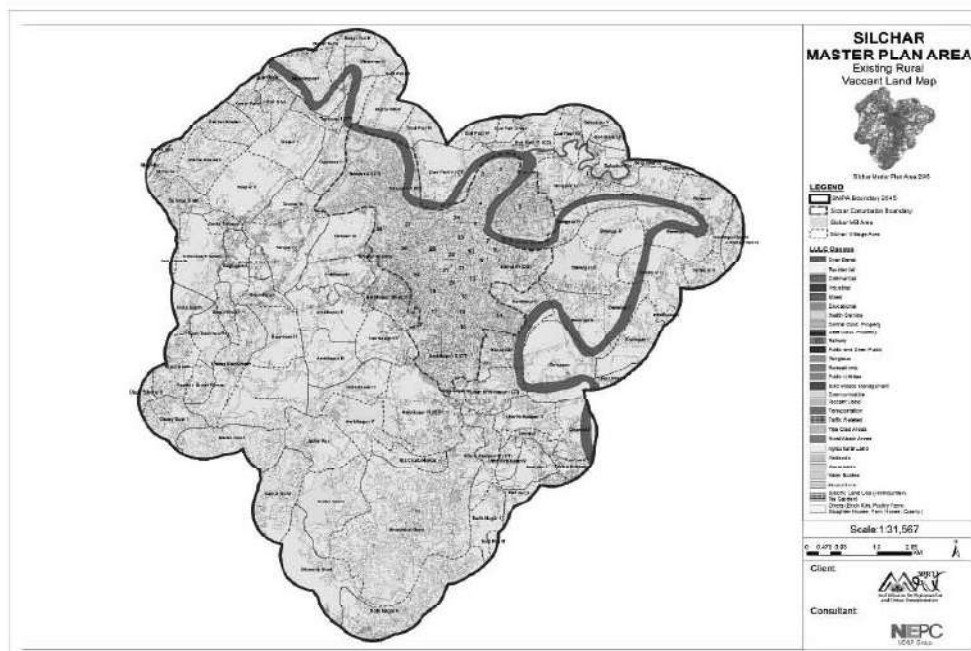


Figure 62 Existing Vacant Landuse - Rural Area

4.2.8 PROTECTED & UNDEVELOPABLE USE

Rural Area has 53.81 sq km of area falling under protected and undevelopable land use zone. Majority of the area falling under this category is covered by Barak River, Wetlands and Tree clad area.

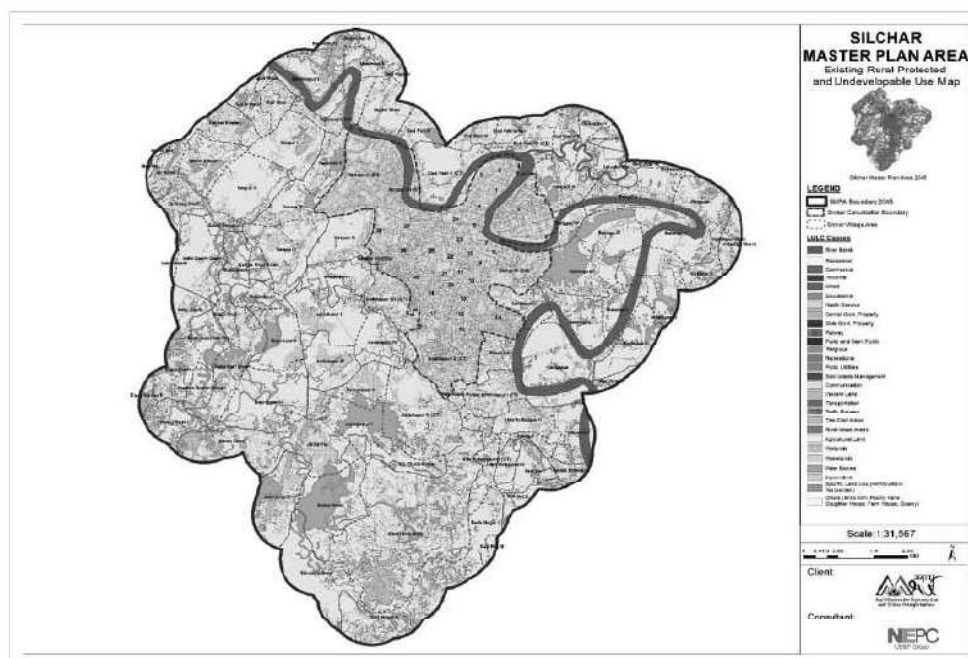


Figure 63 Existing Undevelopable Landuse - Rural Area

4.3 SILCHAR PLANNING AREA - 2020

The overall existing land use analysis chart for Silchar Planning Area - 2020 is shown in figure 64. Agricultural land use occupies 33% of the total area of the Silchar Planning Area, Residential occupies around 18.52 % of the land area and Waterbody is spread over 14.42% of total land area of the planning area. About 3.82% of the planning area is currently lying vacant, 1.57% is under traffic and transportation use, 0.37% is in industrial land use category and 0.33% of the Silchar Planning Area land is under Public and Semi-Public land use category.

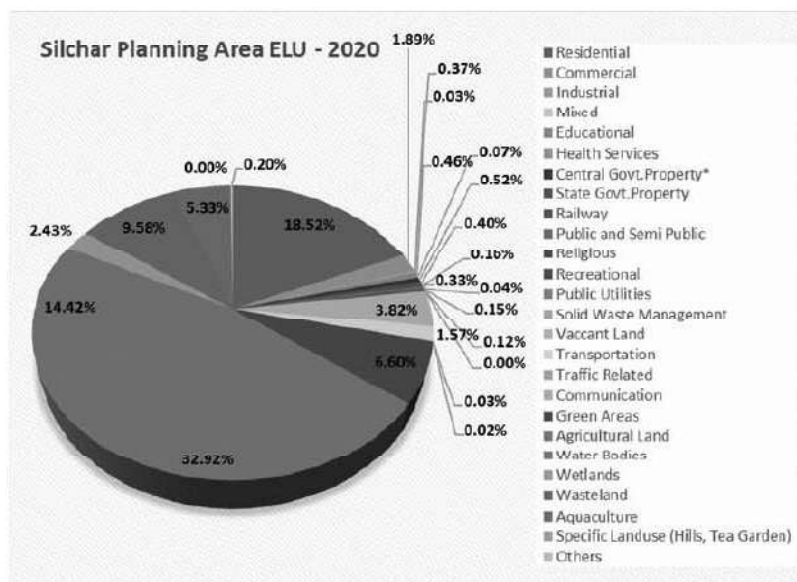


Figure 64 Landuse breakup of Silchar Planning Area - 2020

Details of Existing Land Use analysis-2020 is shown in table 59, agricultural land use being the predominant land use in the planning area occupies 57.4 sq.km area, Water body or Protected and Undevelopable use is spread over 55.39 sq.km, residential use covers 32.29 sq.km and 6.6 sq.km is currently Vacant. Priority should be given to utilize the Vacant land to address the future residential requirements of the planning area and compacting the development should be kept as a key point in the preparation of GIS Based Master Plan-2045 to avoid sprawl.



Table 59 Existing Land Use Analysis for Silchar Master Plan Area- 2020

Sr. No.	Landuse Type	Area (Sq Km)	Percentage Area (%)
1	Residential	32.29	18.56
2	Commercial	3.3	1.90
3	Industrial	0.05	0.37
4	Mixed	0.06	0.03
5	Educational	0.8	0.46
6	Health Services	0.13	0.07
7	Central Govt. Property	0.9	0.52
8	State Govt. Property	0.7	0.40
9	Railway	0.28	0.16
10	Public and Semi Public	0.57	0.33
11	Religious	0.07	0.04
12	Recreational	0.27	0.16
13	Public Utilities	0.21	0.12
14	Solid Waste Management	0.007	0.00
15	Vacant Land	6.66	3.83
16	Transportation	2.74	1.57
17	Traffic Related	0.05	0.03
18	Communication	0.035	0.02
19	Green Areas	11.5	6.61
20	Agricultural Land	57.4	32.99
21	Water Bodies	25.15	14.45
22	Wetlands	4.24	2.44
23	Wasteland	16.7	9.60
24	Aquaculture	9.3	5.34
25	Others	0.35	0.20
Total		174.00	100



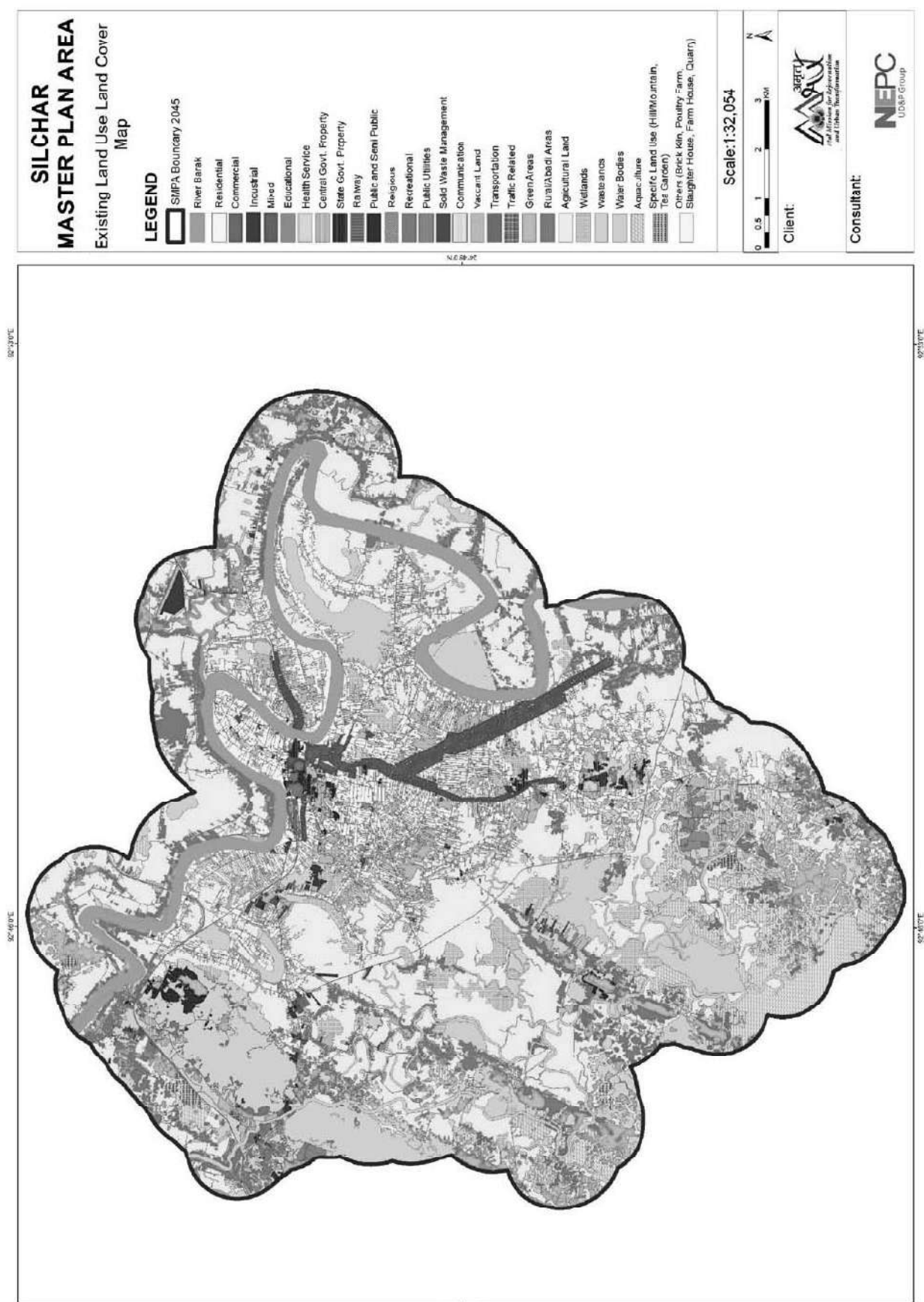


Figure 65 Existing Land Use of Silchar Masterplan Area - 2020

Table 60 Comprehensive Existing Land Use Analysis of SMPA - 2020

Sr. No.	Landuse Type	Conurbation Area (Sq Km)	Rural Area (Sq Km)	Entire SMPA (Sq Km)
1	Residential	11.13	21.16	32.29
2	Commercial	2	1.3	3.3
3	Industrial	0.15	0.5	0.65
4	Mixed	0.03	0.03	0.06
5	Educational	0.1	0.7	0.8
6	Health Services	0.03	0.1	0.13
7	Central Govt.Property*	0.2	0.7	0.9
8	State Govt.Property	0.4	0.3	0.7
9	Railway	0.02	0.26	0.28
10	Public and Semi Public	0.07	0.5	0.57
11	Religious	0.05	0.02	0.07
12	Recreational	0.13	0.14	0.27
13	Public Utilities	0.015	0.2	0.21
14	Solid Waste Management	0.007	0.00	0.007
15	Vacant Land	3.02	3.64	6.66
16	Transportation	1.52	1.22	2.74
17	Traffic Related	0.01	0.04	0.05
18	Communication	0.02	0.015	0.035
19	Green Areas	0.3	10.75	11.5
20	Agricultural Land	2	55.4	57.4
21	Water Bodies	2.46	22.7	25.15
22	Wetlands	0.6	3.64	4.24
23	Wasteland	0.4	16.3	16.7
24	Aquaculture	-	9.3	9.3
25	Others	0.0007	0.35	0.35
Total		24.66	149.34	174.00

(Source: Compiled by Consultant)

The Existing Land Use area for entire SMPA integrating Conurbation and Rural area is presented in the table above. As it is observed from the table that in conurbation area, there is very less vacant area available which indicates that Silchar town has no further scope of development. Thus, for the town the focus is to conserve the existing buildings or redevelopment in conformity with the heritage importance and special regulations for urban area.

While concentrating on the rural area it has good amount of Agriculture and Vacant area which opens up the scope for development in the area. Additionally, it has large amount of area falling under residential category making it clear that the inflow of people is already there due to various reasons. Commercial cover also observed settled along major road indicating presence of business and trade.

However, CBD area is located near to conurbation and includes area which are observing good amount of development, it is envisaged that the conurbation area will have the highest development in the upcoming years.

As observed from the table above, in the areas outside of conurbation, most of the land is under agricultural use as this is rural area. Thus, more than 45% of the area falls under agriculture use and waterbodies followed by wetlands. Very less area is covered for residential, commercial, industrial etc.

5. HOUSING

Housing sector is employment intensive; it generates employment during its construction period and, during its life for maintenance purpose. The United Nations Centre for Human Settlements (UNCHS) uses a broader term "Settlement conditions" because it extends to all those components of the physical environment with which an individual or a community comes into contact and which are used on a regular basis for the whole range of human activities - the individual dwelling and its related services, the dwelling's immediate surroundings, community facilities, transportation, and communications network and so on.

This section of the report reviews the housing profile in the project area. Census 2011 housing data had used to analyze the profile. Analysis of the Silchar urban area includes Ambicapur Pt VIII (CT), Ambicapur Pt VI (CT), Ambikapur Pt. X (CT), Dudhpatil Pt VI (CT), Dudhpatil Pt V (CT), Tarapur Pt VI (CT), Tarapur VII (CT), Tupkhana Pt I (CT), Uttar Krishnapur Pt III (CT), Uttar Krishnapur Pt. I (CT) and Silchar XI (OG) WARD NO.-0029, Tarapur VIII (OG) WARD NO.-0030 are the outgrowth area. In addition, number of household data of other rural centres falling within the project area is available, but rest of the housing parameters are available only for Silchar MB and OG area; hence, not all housing parameters were analysed for other rural centres then SMPA.





5.1 EXISTING HOUSING SCENARIO

In today's context, perhaps the most important issue for urban dwellers is to find an appropriate place to live. It is observed that the price of all kind of housing have been increasing exorbitantly, which indicate that the investment in housing sector is unable to match pace with the increasing demand for housing. Rapid urbanization and rural to urban migration have led to a substantial shortage of housing in the region. The direct result of this is the concentration of informal settlements in the city. Given that the shortage in housing is concentrated at the bottom of the pyramid, the sector can play an important role in the socioeconomic development.

Moreover, with the rapid urbanization and significant increase in the housing demand, housing sector is the engine of immense potential of giving a push to the economy because of its link with the employment generation and livelihood. Therefore, provision of housing can make a significant difference in income of families, both in rural and urban areas. The number of households in Silchar MPA for year 2011 is given.

Table 61 Municipal Board area.

Ward No.	Population 2011	No. Of Households	Housing Size	Ward No.	Population 2011	No. Of Households	Housing size
1	6057	1348	4.5	15	2591	565	4.6
2	7229	1606	4.5	16	6256	1552	4.0
3	10933	2339	4.7	17	6778	1499	4.5
4	4084	927	4.4	18	7297	1708	4.3
5	18493	4053	4.6	19	7268	1630	4.5
6	1912	413	4.6	20	4466	1020	4.4
7	6866	1427	4.8	21	3833	932	4.1
8	1803	376	4.8	22	4913	1209	4.1
9	4397	908	4.8	23	2702	610	4.4
10	3927	764	5.1	24	9508	2240	4.2
11	3475	816	4.3	25	7306	1630	4.5
12	5281	1174	4.5	26	7969	1671	4.8
13	4462	1015	4.4	27	7708	1729	4.5
14	8175	1754	4.7	28	7141	1732	4.1
				Total	1,72,830	38,647	4.5

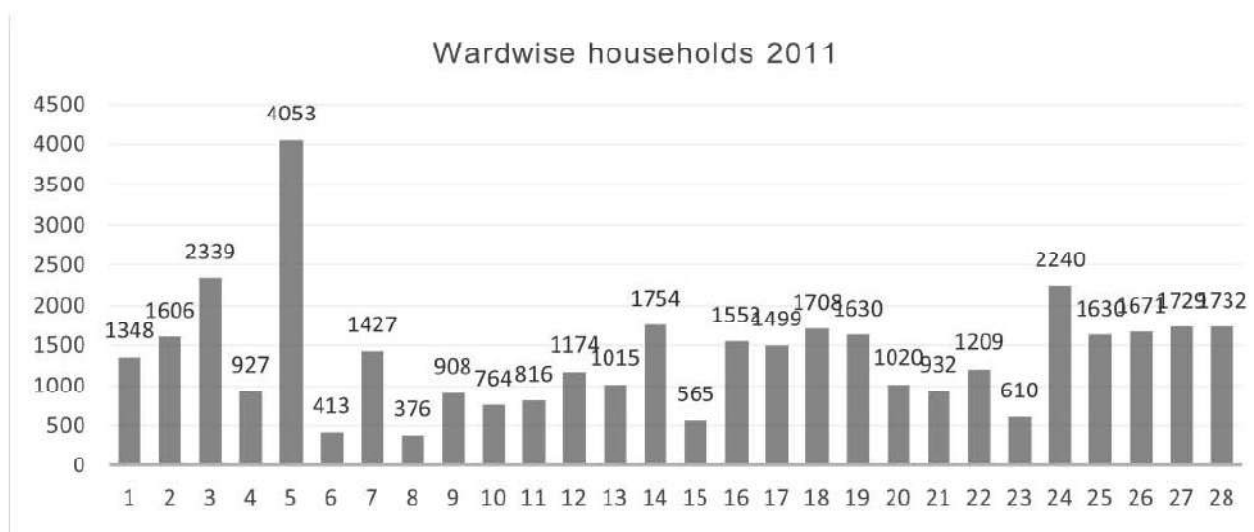


Figure 66 Ward wise Household data in year 2011

The table 62 depicts the ward wise population and total number of households in Silchar Municipal Board area. The minimum number of households are in ward no. 8. Based on the population and households, the housing size is calculated. The overall housing size is **4.5** which is calculated from the ward wise total population and total number of households. The maximum housing size observed in Ward no. 10 that is 5.1. The minimum housing size is 4.0 which is in ward numbers 16.

Table 62 Existing households in Outgrowth and Census Towns

Name of OG / CT	Population 2011	No. Of Household	Housing size
Ambicapur Pt VIII (CT)	11691	2336	5.0
Ambicapur Pt VI (CT)	7971	1641	4.0
Ambikapur Pt. X (CT)	14283	3169	4.5
Dudhpatil Pt VI (CT)	5083	1215	4.2
Dudhpatil Pt V (CT)	4121	919	4.5
Tarapur Pt VI (CT)	8753	1862	4.7
Tarapur VII (CT)	6977	1651	4.2
Tupkhana Pt I (CT)	4640	989	4.7
Uttar Krishnapur Pt III (CT)	5187	1060	4.9
Uttar Krishnapur Pt. I (CT)	6960	1485	4.7
Tarapur VIII (OG)	2532	526	4.8
Silchar XI (OG)	3503	717	4.9
Total	81701	17570	4.6

(Source: Compiled by Consultant)

This table 63 describes the existing households in Outgrowth and Census Town area as per Census 2011 and from this the housing size has been calculated which turns out to be 4.6 on an average. Housing size observed maximum in Ambicapur PT. VIII (CT) which is 5.0 followed by Silchar XI (OG) which is 4.9.,

Table 63 Existing households in Rural area

Name	Population 2011	No. Of Household 2011	Housing size
Silchar MPA households for Rural area	217178	46593	4.6

(Source: Compiled by Consultant)

The population in GIS based Silchar MPA's rural area is 217178 and the total number of households are 46593. The Household size observed in this region is 4.6.



5.1.1 HOUSEHOLDS IN SMPA

In SMPA, the area wise household details are as mentioned below

Table 64 Existing households in Silchar Master Plan Area for 2045

Sr. No.	Name of Area	Population	No. Of Household	Percentage	Household size
1	Silchar Municipal Board (28 Wards)	1,72,830	38,647	37.59%	4.5
2	2 (OC) Outgrowth	6035	1243	1.21%	4.0
3	10 (CT) Census Towns	75666	16327	15.88%	4.6
4	Rural (85 Villages)	2,17,178	46,593	45.32%	4.7
Total for GIS base Silchar Master Plan		4,71,709	1,02,810	100%	4.6

(Source: Census of India 2011, Compiled by Consultant)

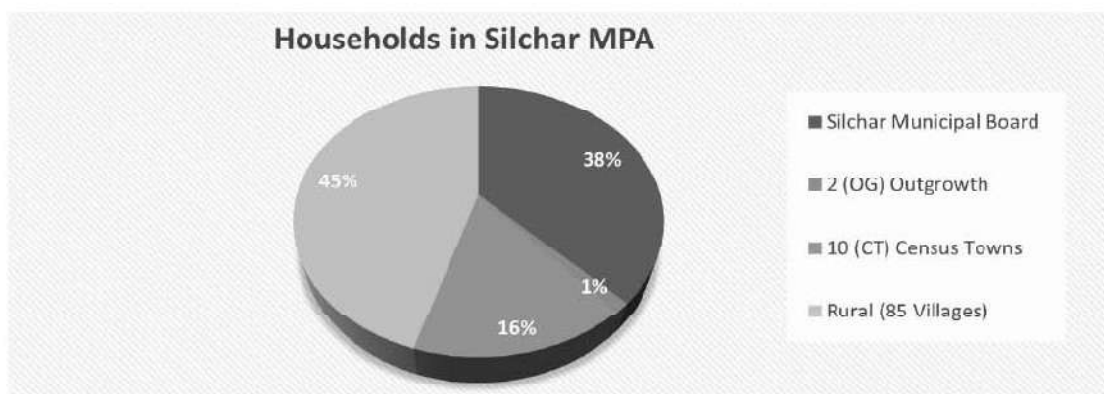


Figure 67 Households in Silchar MPA

The table 65 indicates total population in SMPA is 471709 and the No. of households are 102810 which further leads to the overall household size 4.6. The maximum population is in 85 rural area which is 45% and Silchar MB area contributes 38 % of total SMPA.

5.1.2 SIZE OF THE HOUSEHOLD

The 1991 Census reveals that more than half of the households in the region were medium sized with an average member of 3 to 5. According to census 2011 the medium sized households (4-5) is predominant because of the increasing trend towards nuclear households. Since the trend in nuclear households and rapid urbanisation are at higher rate, there will be considerable pressure on housing in coming future. The overall household size of the Silchar Planning Area is 4.6. HH size is lower than Outgrowth and Census Town area which is 4.9 and 4.6.



5.1.3 HOUSING TYPOLOGY

The 'Housing Typology' is the complex nature of regional contexts as places to formulate human habitation. Investigating the interdependencies evolving between a building's entity and its territory can contribute in the future to development of region. Permanent houses are those with wall and roof made of permanent materials. Wall can be made of G.I., Stone packed with Mortar, Stone not packed with Mortar, Metal, Asbestos sheets, burnt bricks, Stone or Concrete. Roof can be made of Hand-made tiles, Machine made tiles, Slate, G.I., Metal, Asbestos sheets, Brick, Stone or Concrete. Semi-permanent houses are those in which either wall or roof is made of permanent material and other is made of temporary material. Temporary houses are the ones with wall and roof made of temporary material. Wall can be made of Grass, Thatch, Bamboo etc., Plastic, Polythene, Mud, Unburnt brick or Wood. Roof can be made of Grass, Thatch, Bamboo, Wood, Mud, Plastic or Polythene. Table 69 reveals the number of households living in permanent, semi-permanent and temporary houses within the SMPA. Out of 114326 (including institutional households), 48.28% are permanent, 35.98 % are semi-permanent and 15.74% are temporary houses.

Table 65 Distribution of households living in permanent, semi-permanent and temporary houses

Particular		Permanent	%	Semi-permanent	%	Temporary	%
Urban	Silchar MB+OG	34,369	66.93	12,489	24.32	3,425	6.67
	Census Towns (CT)	8,606	48.65	7535	42.60	1310	7.41
Rural	Rural areas	12,221	25.55	21111	45.31	13,260	28.46
	Total	55,196	48.28	41,135	35.98	17,995	15.74

(Source: District Census Handbook, Silchar, Village & Town wise Primary Census Abstract 2011)

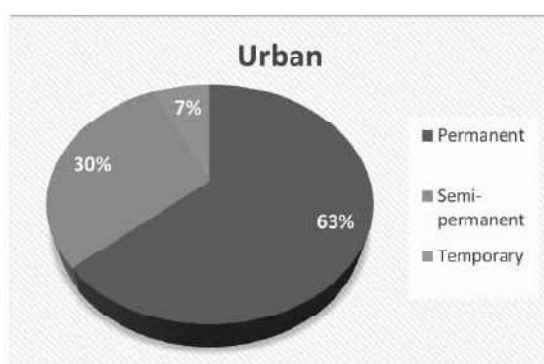


Figure 68 Urban Housing Typology in Silchar Planning

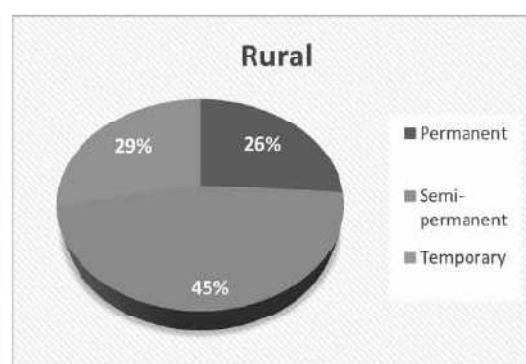


Figure 69 Rural Housing Typology in Silchar Planning

The figure 68 indicates that around 63% are permanent households, 30 % are semi-permanent and 7% of dwelling units are temporary units in Silchar urban area. In rural areas, the percentage of permanent housing is 26%, semi-permanent housing is 45% and temporary housing units are around 29%. It is also being observed that in rural areas 29% of total households are temporary houses. This clearly indicates that focusing the housing development in rural areas is of importance in order to provide basic need of the people.



5.1.4 HOUSING CONDITION

Housing Condition includes the study of condition of housing based on type of structure i.e., permanent/ semi- permanent, physical infrastructure, mass space relationship, condition of the material used for walls and floors etc. It is important to be studied because it indicates the efficiency and sustainability of the housing stock, whether the houses are liveable or not. Based on the above said parameters, the condition of houses has been segregated and the analysis is done as good, livable and dilapidated houses.

Table 66 Housing Conditions

Area	Residence (%)				Residence-cum-other use (%)			
	Total	Good	Livable	Dilapidated	Total	Good	Livable	Dilapidated
Assam	62,72,151	33%	56%	11%	95,144	30%	62%	8%
District	3,61,673	36%	53%	11%	6,370	29%	62%	9%
SMB+OG	40050	62%	34%	5%	652	53%	43%	4%

(Source: Census of India 2011)

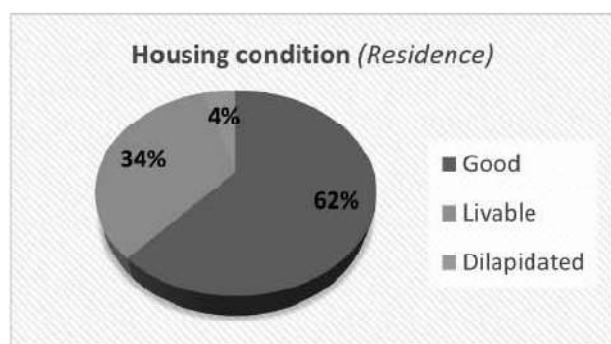


Figure 70 Housing condition as per Census 2011

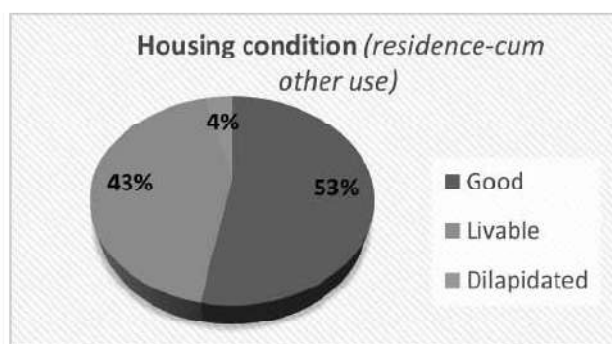


Figure 71 Housing condition in other use Census 2011

Table 67 Slum Housing Conditions

Area	Residence (%)				Residence-cum-other use (%)			
	Total	Good	Livable	Dilapidated	Total	Good	Livable	Dilapidated
Assam	62,72,151	33%	56%	11%	95,144	30%	62%	8%
District	3,61,673	36%	53%	11%	6,370	29%	62%	9%
SMB+OG	4,794	25%	70%	5%	59	44%	54%	2%

(Source: Census of India 2011)

In 2011, out of total 40702 occupied housing units in SMB+OG, 40050 units are exclusively residential and 652 are used for residence-cum-other uses. Out of total residential housing units, majority units are in good condition and livable, while only 4% are in non-living condition. Ratio of housing units in good condition is much higher in SMB+OG (62%) as compare the share of good conditioned occupied housing units in the state (33%) and district (36%). However, the share of livable residence housing condition in the state and in the district is lower as compare to the SMB.

In slum houses category, houses in good condition which are 25% followed by houses in liveable condition which are 70% and the least are in dilapidated condition which are 5%. Also, the condition of houses mentioned for the residential cum other use of slum houses, where only 2 percent are in dilapidated condition.

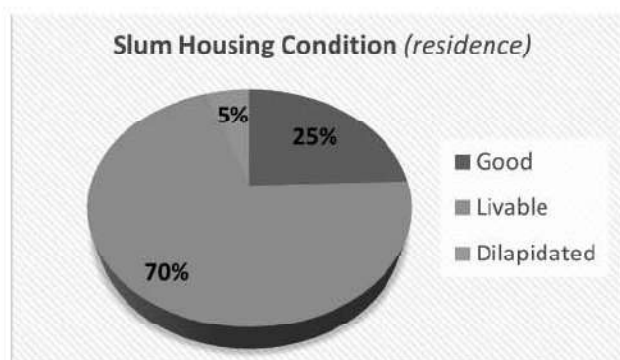


Figure 72 Slum housing condition as per Census 2011

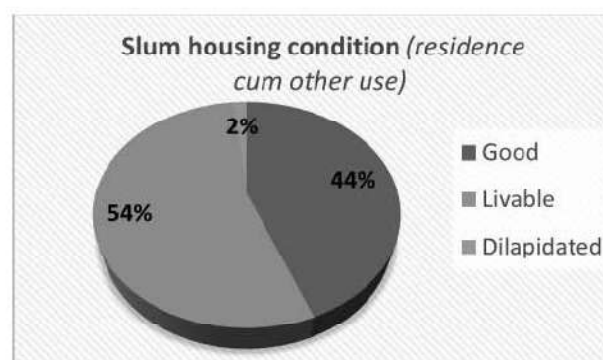


Figure 73 Slum Housing condition in other use Census 2011

5.1.5 CONSTRUCTION MATERIAL OF HOUSES

5.1.5.1 Material of Roof:

Majority of households in the region have G.I. Metal sheets for roofing because they are great protection against rain and is easily available in the region. In SMB area, around 58.48% of houses have G.I. Metal sheet roofs, which is still comparatively low numbers than the states (74.2%).

Table 68 Material of Roof

Area Name	Total number of HHs	Grass/ Thatch/ Wood/ Mud	Plastic Poly thene	Hand made Tiles	Machine made Tiles	Burnt Brick	Stone/ Slate	G.I./ Metal/ Asbestos sheets	Con crete	Any other material
State	6,367,295	18.60%	2.10%	0.70%	0.30%	0.10%	0.80%	74.20%	2.90%	0.20%
District	4,24,685	21.70%	3.65%	0.82%	0.53%	0.26%	1.69%	65.08%	5.86%	0.41%
SMB+OG+CT	69,036	5.72%	2.22%	0.67%	0.41%	0.42%	5.47%	58.32%	26.00%	0.77%

(Source: Census of India 2011)

the districts 65%, households have the same G.I. metal roofing material. At the same time, around 26% households in SMB have the permanent roofs made of concrete; the number is comparatively higher than the number of households with the permanent roofs in the state and the districts.

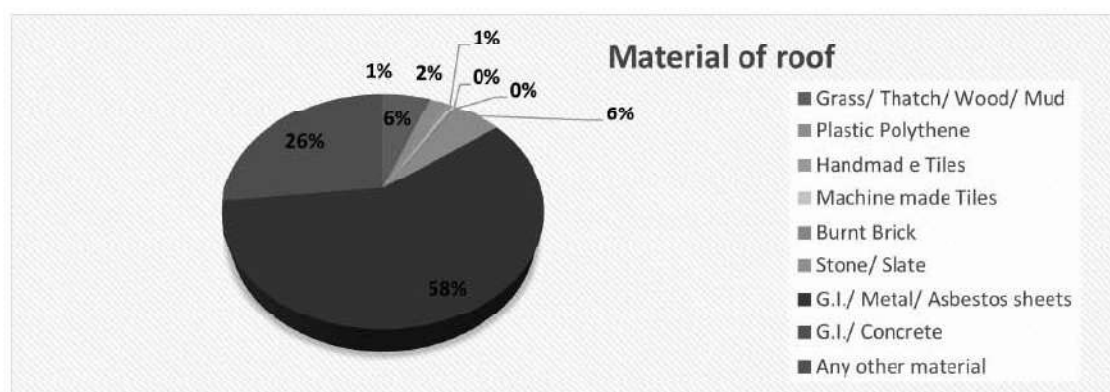


Figure 74 Material of roof

5.1.5.2 Material of Wall

Majority of houses in SMB, OG and CTs are Pucca houses with walls made of either burnt bricks (45.1%). Houses made with Grass, thatch and bamboos is the second majority in SMB area (29.8%). However, on the other hand, majority of houses in the state (66.4%) and in the district (55%) are Kachha houses with the walls made of grass, bamboos, and thatch.

Table 69 Material of Wall

Area Name	Grass/ Thatch/ Bamboo etc.	Plastic/ Poly thene	Mud/ Unburnt brick	Wood	Stone not packed with mortar	Stone packed with	G.I./ Metal/ Asbestos sheets	Burnt brick	Con crete	Any other material
State	66.40%	0.60%	3.60%	1.60%	0.70%	1.40%	1.10%	21.20%	2.9%	0.50%
District	54.54%	1.02%	8.14%	2.54%	1.83%	2.25%	0.59%	26.94%	1.5%	0.64%
SMB+OG+CT	29.86%	0.88%	2.33%	1.90%	4.59%	6.77%	1.72%	45.10%	5.6%	1.24%

(Source: Census of India 2011)

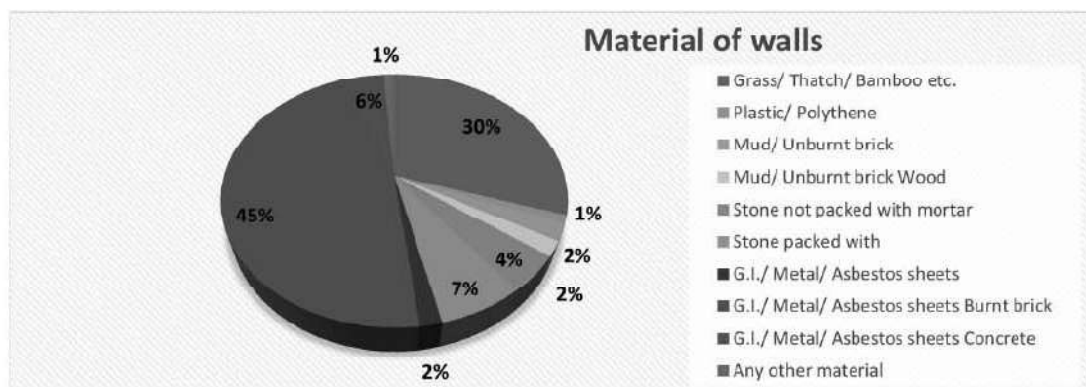


Figure 75 Material of walls

5.1.5.3 Material of Floor:

In SMB and OG, cement is predominantly used material for flooring. Almost 56.43% households in SMB and OG have permanent flooring made of cement, and only 33.89% houses are with flooring made of mud, especially in the slums and other low-income group areas. On the other hand, at the state and the district levels, mud is the predominant flooring material widely used. Majority of households in the state (78.6%) and in the district (74.6%) have floor made of mud. Wood, bamboo, stone, and mosaic tiles are other flooring materials used for flooring in the region.

Table 70 Material for Flooring

Area Name	Mud	Wood/ Bamboo	Burnt Brick	Stone	Cement	Mosaic/ Floor Tiles	Any other material
State	78.6%	2.1%	1.2%	0.4%	16.6%	1.0%	0.1%
District	74.64%	1.54%	1.93%	0.99%	20.12%	0.66%	0.11%
SMB+OG+CT	33.89%	1.65%	3.05%	1.74%	56.43%	3.03%	0.20%

(Source: Census India, 2011)



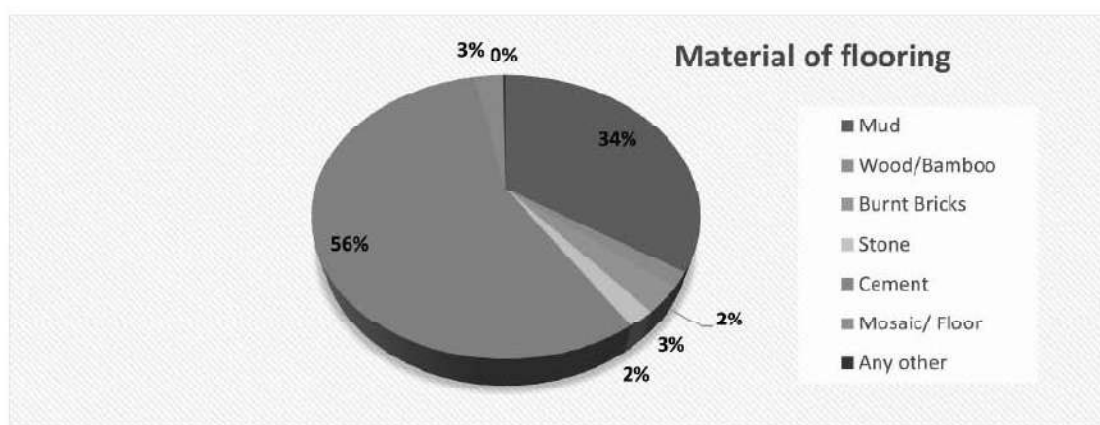


Figure 76 Housing by Material of Flooring

5.1.6 OWNERSHIP STATUS OF HOUSES

According to census 2011, the housing sizes are classified as number of dwelling units with following categories.

1. Dwelling units with no exclusive rooms
2. Dwelling units with single room
3. Dwelling units with two and three rooms
4. Dwelling units with four and five rooms
5. Dwelling units with six and above rooms

Table 71 Housing Ownership Urban area

Area Name	Ownership status	Total no. of households	Households having number of dwelling rooms						
			No exclusive room	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six+ rooms
Silchar (MB+OG)	Total	40702	3052	13554	10413	6969	3928	1446	1340
	Owned	58%	45%	43.82%	54.0%	69.0%	84.2%	90.9%	92.7%
	Rented	38%	46.56%	52.26%	42.74%	27.03%	13.39%	7.88%	1.34%
	Any Other	4%	8.68%	3.93%	3.24%	3.96%	2.37%	1.18%	1.34%

(Source: Census India, 2011)

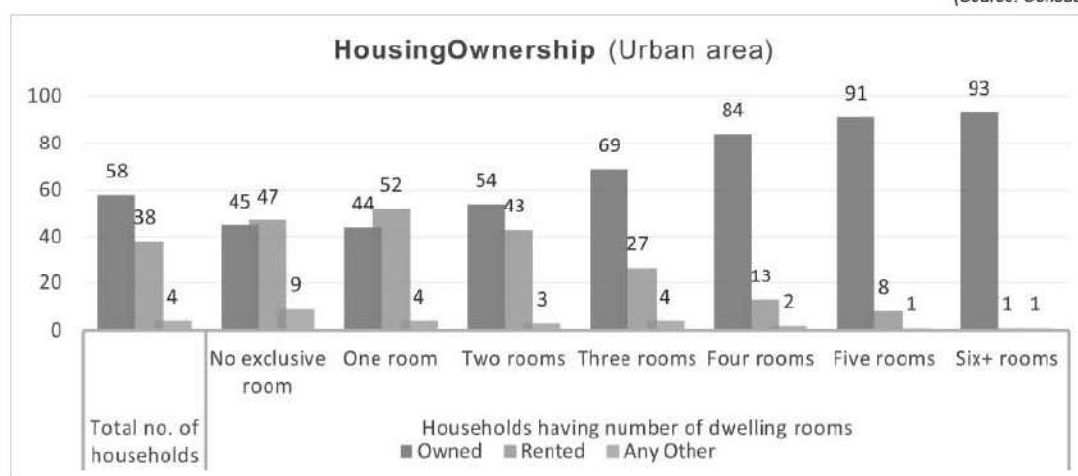


Figure 77 Housing ownership by dwelling room

From the figure 78 it is observed that 25% of total households are owning single room and three-room units in the urban area while 24% households live in two room dwelling units. Out of 10413 two room units 54% are owned and 42.38% are on rent. It is also observed that 6% of the Households are living in five plus rooms where only 14% in 4 rooms. In overall the 6% of the households are living without any exclusive room in urban area on the total urban households.

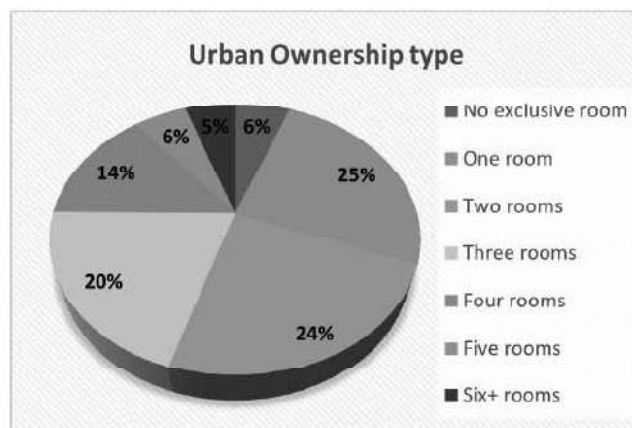


Figure 78 Housing ownership of dwelling in SMPA

The figure 79 describes that 32% of total households are owning single room in the rural area while 55% households live in two and three-room dwelling units. Out of 25,678 two-three room units 85% are owned, whereas only 11% are on rent status. It is also observed that 1% of the Households are living in five-six dwelling rooms where only 0.84% are rented and major units are under ownership. In overall the 11% of the households are living without any exclusive room in rural area on the total rural households.

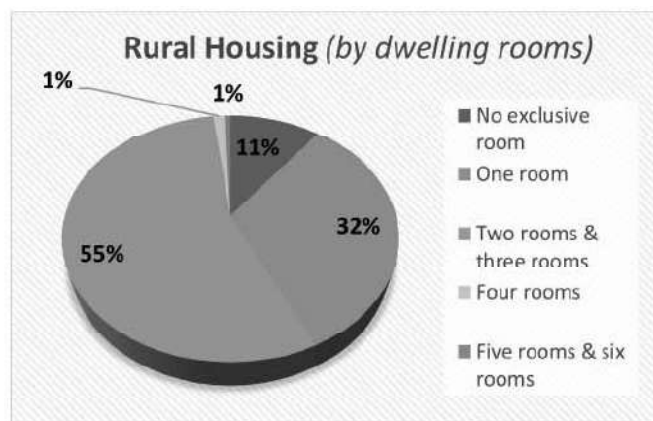


Figure 79 Housing ownership of dwelling in SMPA

Table 72 Housing ownership Rural Area

Area Name	Ownership status	Total number of households	Households having number of dwelling rooms				
			No exclusive room	One room	Two and Three rooms	Four and Five rooms	Six rooms and above
Silchar (Rural)	Total	46593	4886	15105	25678	629	295
	Owned	93.10%	92.01%	82.86%	85.23%	94.90%	96.73%
	Rented	1.69%	1.46%	10.42%	11.41%	0.74%	0.84%
	Any Other	5.32%	6.53%	6.72%	3.36%	4.36%	2.43%

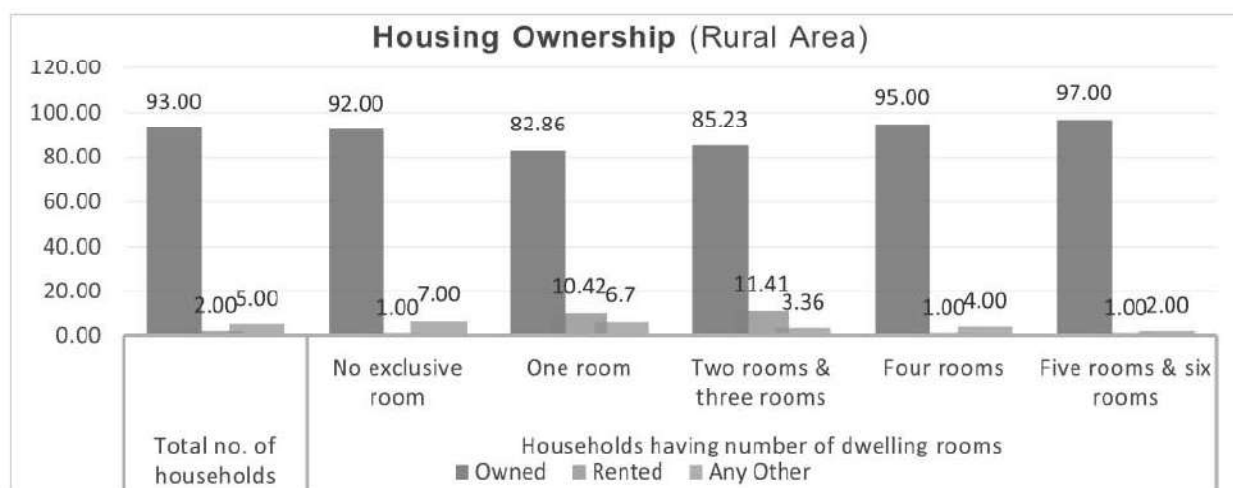


Figure 80 Housing Ownership by Dwelling rooms (Rural)

Table 73 SMPA Housing Ownership by Dwelling Rooms

Households having number of dwelling rooms						
Area Name	Total number of households (Excluding Vacant and institutional houses)	No exclusive room	One room	Two and Three rooms	Four and Five rooms	Six rooms and above
SMPA	87295	7938 (9%)	44790(51%)	26929(31%)	4557(5%)	3081(4%)

In SMPA, 51% are one-room dwelling units as majority followed by two- and three-room categories, while 9% not having any exclusive rooms. Overall, SMPA observes 77% housing under ownership status and very less under rent category status. 4% housing have not clear ownership status in SMPA.

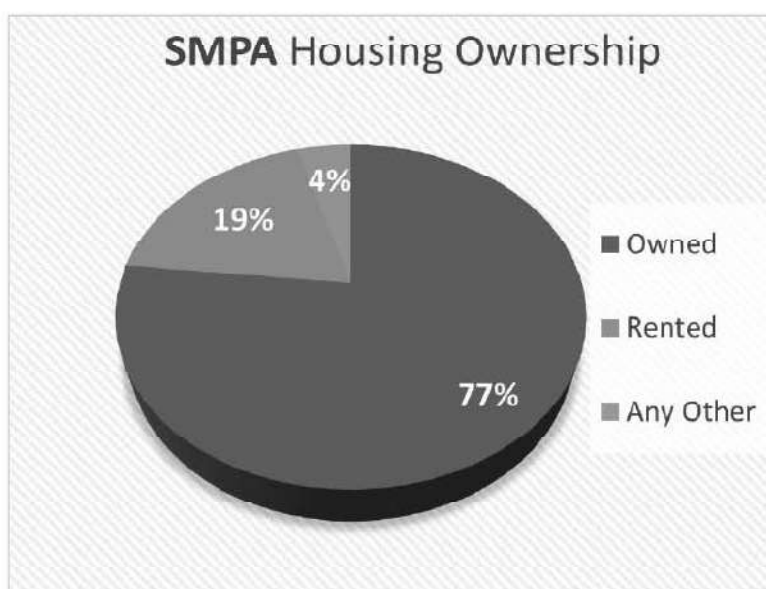


Figure 81 SMPA Housing Ownership

5.1.7 SERVICES

5.1.7.1 Source of Drinking Water:

On an average, more than half of the household in the region have source of drinking water within their premises. Water taps, wells, hand pumps, tube wells or boreholes are the primary sources of drinking water for households within-premises water facilities, while river, pond, lake, spring, and tank are the main drinking water source of water for them who do not have sources within their premises or nearby their premises and must go little far.

Table 74 Source of Drinking Water

Total/ Rural/ Urban	Location	No. of Hhs	Main Source of Drinking Water							
			Tap	well	Hand Pump	Tube well/ Bore hole	Spring	River/ Canal	Tank/ Pond/ Lake	Others
State	Within the premises	55%	10%	17%	62%	11%	0%	0%	0%	0%
	Near the premises	27%	12%	19%	40%	8%	1%	5%	14%	2%
	Away	10%	9%	24%	31%	6%	5%	12%	5%	7%
District	Within the premises	21.7%	64%	24%	3.8%	8.05%	0%	0%	0%	0%
	Near the premises	46.2%	34%	24%	1.1%	1.61%	1.17%	8.45%	28.8%	0.49%
	Away	32%	22 %	37%	1.7%	2.11%	5.16%	21.2%	9.5%	1.03%
SMB+OG+CT	Within the premises	68.7%	80%	4.8%	4.42%	10.04%	0%	0%	0%	0%
	Near the premises	17.4%	57%	9%	5.19%	7.5%	0.16%	8.89%	11.3%	1.39%
	Away	13.8%	45%	9%	7.88%	4.8%	0.05%	26.9%	3.30%	3.10%

Source: Census of India 2011

As compared to the state, both districts and SMB have higher number of houses with the drinking facilities within in the premises. Majority houses in SMB have drinking water facilities within their premises. Unlike SMB where taps and tube wells are the primary source of water for the in-premises water facilities, hand pumps and tube well are the preliminary source of drinking water for the district.

5.1.7.2 Source of Lighting:

Around 82% of households in SMB and OG including CTs have electricity connection. Similarly, majority of households in other urban centres of the project area have electricity connection. However, at the state level, less than 50% household have electricity connection, which means electricity has not yet reached to the all-rural areas in the state, and kerosene is still being used as a main lightening source widely in Assam. In SMB, the main source of lightning is electricity, which mainly provided by Assam State Electricity Board.

Table 75 Source of Lighting

Area Name	No. of households	Main Source of Lighting					
		Electricity	Kerosene	Solar Energy	Other Oil	Any Other	No Lighting
State	6,367,295	37.0%	61.8%	0.8%	0.1%	0.1%	0.2%
District	3,68,043	38.1%	60.2%	1.1%	0.3%	0.1%	0.3%
SMB+OG+CT	56,242	82.1%	16.0%	1.0%	0.2%	0.1%	0.7%

(Source: Census of India 2011)

5.1.7.3 Type of Latrine Facility:

Around 96% of households in SMB and OG have latrine facility within the premises. Similarly, majority of households in other urban centres of the project area also have latrine facility within the premises. However, around 19% to 35% households in the state and districts do not have latrine facilities within their premises. Septic tank is the most common type of treatment for in-premises latrine facility found in the project area.

Table 76 Type of Latrine Facility

Area Name	Number of Hhs Having Latrine Facility Within	Type of Latrine Facility Within the Premises										
		Flush/Pour Flush Latrine Connected			Pit Latrine		Night Soil Disposed Into	Service Latrine		Number of Hhs Not Having Latrine Facility	No Latrine Within Premises	
		Piped Sewer	Septic Tank	Others	Ventilated	Open Pit		Night Soil Remo	Night Soil Service		Public Latrin	Open
State	65%	5%	15%	8%	10%	24%	1%	0%	1%	35%	2%	33%
District	81%	6.9%	18%	14%	25%	32%	1.16%	0.13%	1.78%	19.02%	11%	88%
SMB+OG+CT	96%	14%	54%	6%	13 %	9%	1.1%	0.37%	1.01%	3.98%	38%	62%

(Source: Census of India 2011)

5.1.7.4 Type of Bathroom and Drainage Connectivity:

Over half of the households in the urban centers of the project area have bathing facilities within their premises. In fact, 71% households in SMB and OG have in-premises bathroom facility. On the other hand, 50% or more households in the state do not have in-premises bathroom facility.

Except GMC, the rest of the region is facing issues due to the lack of properly planned drainage system (suffering from lack of planned drainage system) for wastewater discharge. However, the 68% of SMB and OG area has wastewater outlet connected to the drainage system, only 18% of the area has planned underground drainage system, and the rest of 49.6% area has open drainage system connected to the wastewater outlets from houses.

Table 77 Type of Bathroom & Drainage Facility

Area Name	Number of HHs having Bathing Facility within the Premises		No	Wastewater Outlet Connected to		
	Yes			Closed Drainage	Open Drainage	No Drainage
	Bathroom	Enclosure without roof				
Assam	24%	17%	58%	4%	17%	80%
District	24.4%	18.8%	56.7%	5.7%	29.0%	65.3%
SMB+OG+CT	71.1%	15.2%	13.7%	18.6%	49.6%	31.8%

(Source: Census of India 2011)



5.2 GROSS HOUSING DENSITY

Table 78 Gross Housing Density

Sr. No.	Name of Area	No. Of Household	Area (sq.km.)	Housing Density
1	SMB (28 Wards)	38647	15.75	2454
2	2 (Two) OG	1243	10.23	122
3	10 CTs	16327	24.04	679
4	05 villages from Silchar	46593	124.00	376
Total SMPA		102810	174	590

(Source: Census of India 2011)

Cities in India tend to have highest housing density in the central area. The density often progressively falls towards outskirts of the city this phenomenon is produced by intermixing of land uses in the central area particularly commercial activities, with residences. Housing density is defined as the average number of houses in one square kilometre of land or total number of households per total area. The housing density is important to be studied in urban study because it describes the level of openness or congestion in an area in terms of built-up area and open areas with respect to total area. Analysis of housing density in Silchar MPA has revealed the overall gross housing density as 590. The high housing density in Silchar MB area is not a reflection of high-rise building but it is essentially due to the high occupancy rate and land coverage.

5.3 HOUSING TREND

Decadal Housing trend from year 1991 to 2011 for Silchar Master Plan Area is given below. According to Census 2011, Municipal + OG area has less household requirement compare to rural area. Trend indicates the progressive fulfilment of household requirement from year 1991 to 2011.

Table 79 Housing trend according to decades

Year	1991				2001				2011			
DMPA	Population	Households	Required Households for 1991	Shortage	Population	Households	Required Households for 2001	Shortage	Population	Households	Required Households for 2011	Shortage
SMB + OG	115483	20299	25105	4806	156948	31088	34119	3031	178865	39890	38884	-1006
CTs	0	0	0	0	34637	6547	7530	983	75666	16327	16450	122
Rural	158723	31487	34505	3018	183746	35947	39945	3997	217178	46593	47213	620
Total	274206	51786	59610	7824	375331	73582	81594	8011	471709	102810	102547	-264

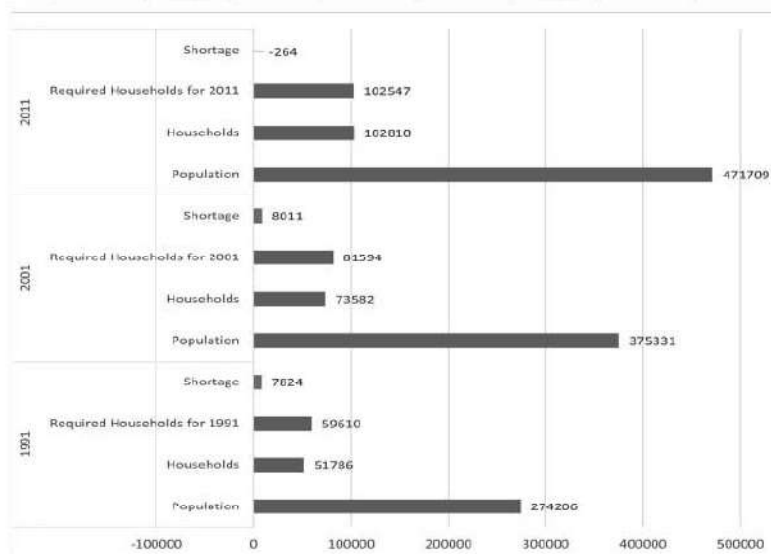


Figure 82 Decadal Housing Trend for the years 1991, 2001, 2011

5.4 GROWTH OF REAL ESTATE

The real estate sector is one of the most globally recognized sectors. In India, real estate is the second largest employer after agriculture and is slated to grow at 30 per cent over the next decade. The real estate sector comprises of further sub sectors like township, housing, retail, hospitality, infrastructure and commercial. The growth of this sector is well complemented by the growth of the corporate environment and the demand for office space as well as urban and semi-urban accommodations. The construction industry ranks third among the 14 major sectors in terms of direct, indirect and induced effects in all sectors of the economy. (Source: Department of Industrial policy and promotion 2016)

Silchar region experienced almost 50% population growth between the census year 1991 and 2011. This increasing trend has resulted in promotion of huge amount of all kind infrastructure development in Silchar Planning Area. With a fair infrastructure availability and being a trade gateway to Mizoram, Manipur, Silchar has opened an immense opportunity for Retail sector, Wholesale market and real estate along with existing commercial & residential requirements of the region. Certain transportation connectivity improvement and development of rail-road corridor integrity has led to a boost in economic activity and in the real estate market of Silchar. This will lead builders and developers from across the country investing in the Silchar Planning Area. Moreover, the industrial infrastructure development carried out by Malinibeel industrial region has attracted investments to the region and has played a vital role in promoting industrial development of region and making it an attractive location for investors from across the region. The Government of India along with the governments of the surrounding states has taken several initiatives to encourage the development in the sector.

The real estate growth witnessed in the region is a result of the aforementioned reasons and it is poised to grow at a good pace with development initiatives taken by the Government of Silchar and measures adopted as part of Master Plan 2045 which will open more residential properties for development along with industrial properties and Industrial corridors. With these proposals being adopted and implemented by the government, it will create an exponential growth in the real estate market of the Silchar region. Hence based on the study of above facts, it indicates that there are 5 growth driven factors of Indian state's real estate. They are:

- Rapid Urbanisation
- Significant rise in consumerism
- Policy and regulatory reforms
- Surge in industrial and business activities
- Increasing demand for newer avenues for entertainment, leisure and shopping

Considering the above factors, the Real estate developers aim to utilise opportunities in line of market demand. Hence, these phenomena of possible development act as catalyst in the development process by creating more demand for residential and commercial area in the Planning Area. On the other hand, it gives boost to the property values and paves the way to keep the real estate sector vibrant in Planning Area. However, while this development is progressive for human beings, sociologists and ecologists are concerned about the fate of the agriculture land. More and more farmers of Silchar region will be forced to sell their lands to builders as they pay lucrative amounts for the plots. Areas which were barren or even wetlands at one point are now seeing construction of residential or commercial buildings. Therefore, in order to bring the orderly development and to protect the fertile agricultural land, the Government of India has come up with "The Real Estate (Regulation and Development) Act, 2016".

5.4.1 THE REAL ESTATE (REGULATION AND DEVELOPMENT) ACT, 2016

The Real Estate (Regulation and Development) Act, 2016 is an Act which protects the interest of purchasers of plots and dwelling units / flats. It further helps to boost investments in the real estate industry. The Act mandates establishment of Real Estate Regulatory Authority (RERA) in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal. The Real Estate Regulatory Authority regulates the real estate sector and ensures sale of plot, apartment or building, as the case may be, or sale of real estate project, in an efficient and transparent manner and also protects the interest of consumers in the real estate sector. The act has got provision for an adjudicating mechanism for speedy dispute redressal and also for establishment of Appellate Tribunal to hear appeals filed under the Act.

it is now a mandate for the city's real estate developers to register their projects under the Real Estate (Regulation and Development) (RERA) Act 2016, after the Assam Government notified the Act as Assam Real Estate (Regulation and Development) Rules 2017 in May, 2017.

5.4.2 SALIENT FEATURES OF THE REAL ESTATE REGULATION ACT (RERA), 2016

- The act establishes the state - level Real Estate Regulatory Authority for the regulation and promotion of the real estate sector, under section 20;
- The Act mandates prior registration of a project with the Real Estate Regulatory Authority under section 3(1). It also states that prior to registration no promoter shall advertise, market, book, sell or offer for sale, or invite persons to purchase in any manner any plot, apartment to building in any real estate project registering the real estate project with the Authority;
- The Act additionally provides for the registration of real estate agents by the real Estate Regulatory Authority under Section 34(a).
- The Act lays down the functions and duties of promoters under section 4, and under section
- It provides that once registration is applied for, RERA is given a time period of 30 days to either approve upon registration, the promoter shall be provided with a log-in and password to access the website of the authority, and shall create his web page on the website and enter the details of proposed projects;
- Under Section 4(2) (i) (d), it makes mandatory upon the promoters to deposit fund amounting to 70 per cent to over the construction cost of the project in a separate bank account to be maintained at a scheduled bank, to prohibit unaccounted money from being pumped in and out of the sector to the detriment of the consumer.
- The Act states, under section 4(2) (d), the project shall be developed by the promoter in accordance with the sanctioned plans, layout plans and specifications as approved by the competent authorities.
- Under Section 15(1), promoter shall not transfer or assign his majority rights and liabilities in respect of a real estate project to a third party without obtaining prior written consent from two-third allottees.
- Under Section 19, the Act provides for the rights and duties of allottees, like allottee shall be entitled to know stage-wise time schedule of completion of the project, right to claim the refund of amount paid along with interest and compensation in the manner as provided under the Act.
- Under Section 38(1), the Act provides for penalties and offences in case of violations of law by the promoters, allottees and the real estate agents.

5.4.3 NEED FOR HOUSING POLICY

Housing is an important economic activity besides being a necessity. As part of the construction industry, which accounts for more than 50 per cent of the development outlays, housing has emerged as a major sector of economy having backward and forward linkages with almost all other sectors. With the increasing urbanisation and rural to urban migration for employment, it becomes inevitable to provide basic infrastructure to people. Thus, to meet this demand, Government of India is introducing various policies like Pradhan Mantri Aavas Yojana (Housing for all), affordable housing policies etc. For the vulnerable and weaker sections of the society, the Government is playing the role of direct provider. A Centrally-sponsored scheme called Valmiki Ambedkar Awas Yojana (VAMBAY) was launched with a view to ameliorating the conditions of the urban slum dwellers living below poverty line who have inadequate shelter. The scheme has the primary objective of facilitating the construction and upgradation of the dwelling units in the slum areas and to provide health and enabling urban environment through community toilets under Nirman Bharat Abhiyan, a component of the scheme. The scheme is being implemented through HUDCO.

The Pradhan Mantri Aavas Yojana is being implemented during 2015-2022 and provides central assistance to Urban Local Bodies (ULBs) and other implementing agencies through States/UTs for:

- In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation
- Credit Linked Subsidy
- Affordable Housing in Partnership
- Subsidy for beneficiary-led individual house construction/enhancement

Credit linked subsidy component is being implemented as a Central Sector Scheme while other three components as Centrally Sponsored Scheme (CSS). All statutory towns as per Census 2011 and towns notified subsequently would be eligible for coverage under the Mission.

In the spirit of cooperative federalism, mission provides flexibility to the States for choosing the best options amongst four verticals of mission to meet the demand of housing in their states. Process of project formulation and approval in accordance with the mission Guidelines has been left to the States so that projects can be formulated, approved and implemented faster.

Other than these interventions, various other interventions were done by the government of India. A historical context of policy interventions towards Housing in India is described below:

- The policies of urban development and housing in India have had a long journey since independence. In early 1950s, the pressure of urban population and lack of housing along with basic services was an issue of great concern to the Government as well as to the civil society. It has generally been the responsibility of States to intervene towards meeting the housing requirements of the vulnerable sections of society and to create an enabling environment for provision of shelter to all on a sustainable basis.
- As part of the First Five Year Plan (1951-56), concrete governmental initiatives began with a focus on institution-building and housing for weaker sections of society. Government undertook construction of houses for Government employees and industrial workers (through Industrial Housing Scheme). The urban land was getting scarce for provision of housing especially for the middle and low-income groups, resulting in the government enacting the Urban Land (Ceiling & Regulation) Act, 1976. Housing and Urban Development Corporation (HUDCO) was set up in 1970 to provide affordable housing and provide specialized attention to critical segments of infrastructure development in cities and towns.
- In the late 80's and early 90's, Government envisaged a larger role for the private sector in the construction of housing, whereas government focused on mobilization of resources, provision for subsidized housing

for the poor and acquisition of land. The National Housing Bank (NHB) was set up as a wholly owned subsidiary of Reserve Bank of India (RBI), in 1988 under the National Housing Bank Act, 1987 to expand the base of housing finance. These were coupled with schemes aimed at provision of housing and basic services for the urban poor.

- The first National Housing Policy was announced in 1988 to eradicate houselessness and improve the housing conditions. Thereafter a revised National Housing Policy was announced in 1994 as a by-product of economic reforms process initiated in 1991. The goal of this policy was to increase the supply of land and basic minimum services with a view to promote a healthy environment. Subsequently, a Housing and Habitat Policy was unveiled in 1998 with the vision of "shelter for all" and better quality of life to all citizens by using the potential of public, private and household sectors. The key objective of the policy was on creating strong Public-Private Partnership (PPP) for tackling the housing problem.
- The National Urban Housing and Habitat Policy (NUHHP) 2007 was formulated with the goal of 'Affordable Housing for All' with special emphasis on vulnerable sections of society such as Scheduled Castes/ Scheduled Tribes, Backward Classes, Minorities and the Urban Poor. The spotlight was on 'habitat development' with a 'Regional Planning Approach' with the role of Government as a 'facilitator' and 'regulator.' The NUHHP-2007 lays emphasis on earmarking of land for EWS/LIG groups in new housing projects while retaining Governments role in social housing so that affordable housing is made available for EWS and LIG categories either on ownership or on rental basis.

Recently, the government of India has also come up with the Draft Model State Affordable Housing Policy for Urban Areas in 2014. The aim of this policy is to "create an enabling environment for providing "affordable housing for all" with special emphasis on EWS and LIG and other vulnerable sections of society such as Scheduled castes/Scheduled Tribes, Backward Classes, Minorities and senior citizens, physically challenged persons in the State and to ensure that no individual is left shelter less. The Policy further aims to promote Public Private People Participation (PPPP) for addressing the shortage of adequate and affordable housing."

In order to supplement the efforts of the State Government, it is anticipated that the Government of India support will be forthcoming in the following aspects:

Through National Policies, Programmes and Schemes and act as a facilitator in the creation of affordable housing stock.

- The Central Government will also on one hand provide for capital grants support to Affordable Housing projects under various schemes to act as a lever to boost the supply of affordable housing and also provide for greater channelization of credit to the urban poor to enhance their purchasing power on the other.
- Ministry of Housing and Urban Poverty Alleviation from time to time will provide inputs to the Ministry of Finance for providing fiscal and financial incentives to this segment.
- The Government of India shall also strive to accord industry status to the real estate segment.
- The Government of India shall also consider making Viability Gap Funding available for Affordable Housing projects.
- Facilitate greater flow of capital through external sources like the External Commercial Borrowings and Foreign Direct Investment.
- The Central Government will encourage development of new avenues for project financing for Affordable Housing including that from the insurance and pension funds.
- The recent initiatives of Government of India like the Credit Risk Guarantee Fund Trust and Urban Housing Fund needs to be further promoted.

Apart from the interventions to be done by central government, state government also has to intervene in order to achieve the central governments' goal of providing affordable housing for all under the Model State